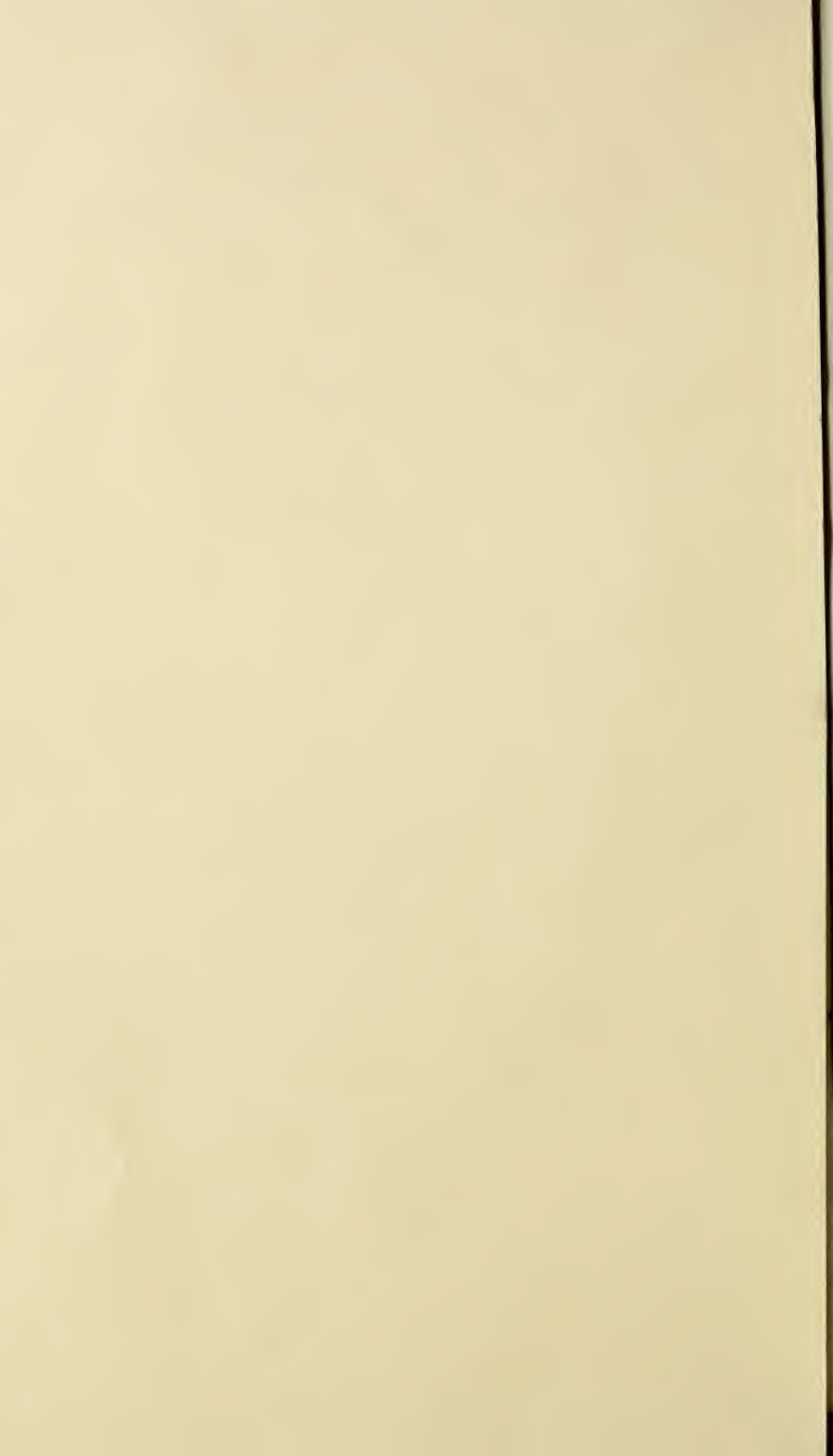


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THE MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, and Rural Economy.

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OUR LONDON LETTERS.

(From our Regular Correspondent.)

London, October 1st, 1879.

The Royal and Central Bucks Agricultural Association had a unique gala-day last Thursday. In the dull leaden atmosphere, which had lain like a blight upon the harvest fields for a week past, the whole farmer-population of the rich Vale of Aylesburg crowded to their central town to do honor to the Premier of England, and forget in feasting and revel the doubts and difficulties of the agricultural crisis. Throughout the whole afternoon in Walton Grange, where the show was held, they thronged and criticised and chaffed and stared, as if no possible ruin were impending over their heads, and no disastrous news from the East, had come to add the last drops to their cup of suffering. Such thoughts were evidently to be consigned to oblivion on an occasion when all the "quality" were there, and the Earl was present himself to grace their festivity. When the rounds of cheering had subsided, and the last discordant notes of music had died in the air, Lord Beaconsfield rose. The pallor of the afternoon had given place to a healthier color in his cheeks; the old look was on his face, half-sinister, half smiling, with the furtive expression of a well-bred disdain about his eyes and the corners of his mouth. Before him and around him were the broad, eager, gaping faces of the rustics, who had come to do him honor, and behind him a rude semblance of a Union Jack, pinned against the wall, set off in clearer outline the somewhat decrepid form which yet bore the threescore and fourteen years of his life with grace and gallantry.

The toast of the evening was "prosperity to the Agricultural Association." It was almost a strange and pathetic sight to watch the eagerness of the farmers: they were not going to wear a sombre look to-night. But they could not help some anxious inquiry about their faces to know how the

Premier of England would treat the agricultural and national distress, which was in reality weighing on their spirits like an intolerable night-mare. To that wistful, almost despairing look, how did Lord Beaconsfield reply? He told them that there was no symptom of distress about the Buckinghamshire show; he told them that there was no reason for supposing the agricultural system of England had broken down; he repeated again the theory of the three profits of the land; he announced to them that they had no cause to fear the United States, for the United States themselves feared Canada; he repeated the ingenious speculations of a "high authority" of what would come to pass when Canada was all cultivated; and he warned them against precipitancy, against peasant-proprietorship, and against cockney agitators.

Lord Beaconsfield has discovered that the farmers in the great grain-growing States of America have taken fright at the vast progress of the Dominion of Canada. Not only are the Canadians about to oust their neighbors of the Union from the European markets, but the cultivators of the Western States are eagerly rushing to the "illimitable wilderness of Canada," assured of being shortly able to make it blossom like the rose, and to gather rapid fortunes such as will throw all previous experience into the shade. Great as is the genius of the Prime Minister of hyperbole, he has surpassed himself here. If the "chief pioneers" who advanced so greatly the cultivation of the extreme Western States of the United States have all sold their farms in order to repair to the "great lone land," they must have found purchasers. And if they have been able to sell at prices vastly in excess of what they paid originally, it follows that these Western States farms are far from being regarded as the worn-out and declining soil suggested. There cannot be sellers without purchasers; and if the rush of sellers points to the exhaustion of the West the influx of buyers points to precisely the converse. The one side of the case counterbalances the other, and the original assertion is

what Scotch lawyers call "not proven." There is another fallacy in the Aylesbury speech, which in fact is full of fallacies. Lord Beaconsfield illustrates the superiority of English over French agriculture, by the fact that the French soil yields only 14 bushels to the acre, whereas the English yields 28 bushels; and that although the climatic and other conditions of France are far more favorable than in England. But the Prime Minister omitted to say that these 15 bushels are the French average after counting in all the poor soil of the country, cultivated under the system of peasant proprietorship, most of which if in England would not be cultivated at all; whereas the English 28 bushels are the product of land of ordinary fertility. To get a fair basis of comparison it would be requisite to throw out of the calculation all those tracts of French land that in England would not be cultivated, which would greatly increase the average of the yield in France.

—
London, October 11th, 1879.

The Duke of Beaufort has written the following letter to Mr. Daniel Owen, who had recently published a pamphlet in which he sought to show that the English farmer would be able to compete in the English market with the American wheat producer, providing the soil in this country were properly tilled. In acknowledging the receipt of a copy of this pamphlet the Duke says:

"I have to thank you for the reprint of your paper, read at a meeting in June of the Cambridge Farmers' Club. . . . There are some parts of the paper, partly opinions of your own, partly those of others, with which I do not agree, and which to my mind are not in accordance with the present state of things in America, and as far as I can see, are still further from the probable future of the wheat-growing zone or district of the continent, both in Canada and in the United States.

"On page 12, in commenting upon the unprecedented crop of wheat grown there last year, you state that it is exceptional, and may not happen again for years to come. As a matter of fact, the crop is much larger this year than it was last, and though the weather was unusually bad and changeable for America, the harvest was well got. As there are now railroads working, others making, and again more contemplated, I believe the surplus of wheat produced beyond the quantity wanted for home consumption in Canada and America, will increase every year for some time to come. Also, as they get money from selling their wheat, they will invest some of it in manures, and, instead of having eleven bushels per acre to sell, grown on their now unmanured land, they will raise the

productive powers of their land. Besides this, the wheat zone is enormous, and as the flood of emigration has again set westward, more acres will be cleared and cultivated. As to the expense, I think that the gentlemen quoted in your paper are in error, for I have no doubt that, though from the very farthest part of the wheat-producing districts it may be more, yet wheat can be landed at Liverpool from the average of the distance from the coast at a cost of 4 s. per bushel, or 32 s. per quarter. Can you compete with this in England? I say certainly not.

"You have had great experience and have grown crops that sound almost fabulous in quantity, but I see that, with all that science and capital could do for three years, you had crops far less to the acre than for the seven previous years. The fact is that in America the sun never fails them as it does in this climate. Their crops ripen quickly, and it is almost a certainty that they have fine weather for harvesting. Bad weather beats even energy and good judgment. Mr. Osborne, I think, greatly over-rates the average wheat produced per acre in the United Kingdom, even in the favorable seasons, when he puts it at thirty bushels. I believe twenty bushels to be much nearer the mark. He is wrong also in saying that it costs 9 d. per bushel railway freight to the coast, which would be 1 £, 10 s. per ton. I believe it to be an error also to say that the railways are carrying wheat at a loss. There is not sufficient competition to cause them to do that.

"The result of my consideration of the subject is this—that climate, steam transport by sea or land, together with the labor question on both sides of the ocean, has made it out of the power of our agriculturists to compete with the growers of wheat on the American continent, and that they must turn their attention to cheaper and better modes of growing beef and mutton, so as not to be driven out of the market also by the Americans. The distance, difficulty and expense of transport of live and dead meat give us an advantage, we shall be wise to improve, instead of wasting time and capital in trying the impossible task of competing with them in growing wheat."

The *Rural New Yorker* notes that in drying corn loses one-fifth and wheat one-fourteenth. From this the estimate is made that it is more profitable for the farmer to sell unshelled corn in the fall at seventy-five cents, than at one dollar per bushel in the following summer, and that wheat at \$1.25 in December is equal to \$1.50 in the succeeding June. In the case of potatoes—taking those that rot and are otherwise lost, together with the shrinkage—and there is little doubt that between October and June the loss, to the owner that holds them is not less than thirty-three per cent.

Farm Work for December.

While there is not much heavy work to be done on the farm this month, supposing that the past month has been diligently embraced to complete the year's work, yet there are many small matters to be attended to by way of preparation for winter and that Christmas may be a time of real holiday for master and man to enjoy themselves a few days after their year of toil, and enter upon the new year with light spirits and hopeful hearts,

THE CORN CROP.

If this crop is not already housed, let it be done at once. If it cannot be shucked, it should be pulled off and put under cover to be shucked in bad weather. The shucks saved, and next spring have them cut fine with the hay cutter, steamed or dampened with water, and sprinkled mill-feed or bran and fed to milch cows; it will be a saving of hay while it is as excellent feed for cattle as can be given them. The corn-stalk fodder ought to be securely set up in the fields, if it all cannot be brought near to the places where it will be wanted for the stock this winter. Corn-cobs should all be ground and mixed with meal, and nearly all the corn fed to the stock should be ground with the cob. It is a great saving and is better, especially for cattle, than the corn alone.

MEADOWS.

Dress your meadows with well rotted manure or compost, and a bushel of plaster per acre. You will experience a great improvement in the growth of grass next year.

TOBACCO.

Embrace every opportunity to 'strip,' and put the bundles in two rowed bulks until they get in good shape, and then hang up on sticks to become perfectly dry. In bulking, see that the leaves in each bundle is smoothly straightened and spread out. In stripping, assort well as to color and length of leaves.

PLOWING.

All stiff, clayey or rough spots in the fields for next year's crops should be plowed deeply, or plowed six inches and sub-soiled. If manure can be had, cover all poor spots with it.

ROOT CROPS.

Now is the time to select the ground where you will grow your potatoes and beets and carrots next season. Plow deep and sub soil; then spread a heavy coat of well rotted manure, with a dressing of plaster and two bushels of salt per acre, harrow it well, and cross harrow so as to intermix the manure and soil. Next spring, when ready to

plant the potatoes or sow the seeds, plow it again, harrow well, use some phosphates, and in the trenches or ridges put more strong stable manure, and the crops will well repay. Too much fresh manure is not well for root crops. They require rich, deep soil, but the manure should be supplied sometime before the plants begin to grow.

PREPARE FOR WINTER.

Put the ice-pond in order — and the ice-house also; see that you have a large supply of fuel at your door, with plenty of kindling wood in a dry shed, convenient to the kitchen. Gather a supply of dry leaves, and pack them under cover—a good way is to have tight log pens and pack them full, and cover over well with straw. They will be ready at any time for use as bedding for stock, especially are they valuable for this purpose for hogs and sheep; cover over the barn-yard with corn-stalks, leaves, old straw, muck, &c., that the liquids may be all absorbed and the stock kept dry under foot; have plenty of racks in and about the barn-yard, kept full of nice straw that the cattle and horses may have access to it when in the yard for exercise or an airing. See that there is plenty of good water convenient for the stock. Put all implements under cover, and repaint and repair all that require it, and be sure and not put this off for "a more convenient season."

SHELTERS.

Be sure and have warm shelters for the stock that are not stabled but are in the fields or lots — sheep, colts, young cattle and brood-mares. These shelters can be made cheaply with poles and brush and corn-fodder, and be warm and comfortable with litter for beds; have racks in each one for hay or straw, and boxes for the mares, colts and calves that are fed on grain. The front of each shelter may be open, if to the south. It is essential to the health and growth of animals to be kept warm and dry in winter. They will do better on one-third less food and on less nutritious food when they have comfortable winter quarters. Keep your stock well and warmly housed and dry, with pure air to breathe and pure water to drink, and you will have no abortions, no "hollow-horn," no murrain,—you will save food, vexation and loss. It is deplorable to see how some people treat their stock in winter—no shelter from the terrible blasts and storms of winter—no place to lie down except it be in mud or filth knee deep—frozen fodder or half rotted straw for food, that perhaps had lain there and tramped over until it was not eatable. It is disgusting to hear such farmers say in the spring, "something is the matter with my cattle, they are poor and sick, and I have lost several

with hollow-horn, or some disease I know not what to call it, while they have had plenty of provender as the quantity have rotted in the yard proves, and I have them driven to water once every day, only half a mile off." If such men had a pine grove or thick wood, and have a straw stack unfenced or his corn-fodder scattered once or twice a week near the woods, and leave his cattle to shift for themselves, he would do better for them and be more *merciful*.

Permit us to make another suggestion, which is an important one, and if carried out will bring much self-satisfaction, and close up the year as it should be closed by every thrifty farmer, and be a stimulant and a help in his labors of the coming year. Let him balance his accounts and see what he made the past year—what stock or which crop paid him best—where he erred and where he did right,—credit his farm with every comfort and necessary it furnished him and his family during the year, and with the nett profits of every thing sold from the farm, and all the increase it has yielded, and with its actual improvement, and then charge it with every expense it has legitimately incurred, and thus see if his farm has paid. He should lay down his plans for another year, foot up all he owes and pay his laborers and all his creditors. Having carefully done all this he can fully enjoy his Christmas, and rejoice at the coming of another year of confident hope.

One other question we hope every farmer will ask himself—"Do I take the MARYLAND FARMER and have I paid for it?"

Garden Work for December.

But little can be suggested as to the work required to be done in the garden this month. Presuming that all the roots are securely buried for winter and that the cabbage is put away safely, you have but to finish cleaning up the ground, putting away the pea sticks, bean poles and the frames and trellis. Spade up after heavy manuring all stiff soil in the garden, that it may pulverize by the frost. Attend to the cold frames and you may sow small salading in some hot beds. See that the lettuce and spinach are protected against severely cold weather. If not done before, mulch the asparagus, rhubarb, strawberry and herb beds, and also the small fruits, such as gooseberries, currants, raspberries, &c.

Give the dwarf fruit trees a wash, composed of, say 1 gallon soft-soap, $\frac{1}{2}$ pound flour of sulphur, 1 pint of salt, and some cow manure, diluted with water to the consistency of thick white-wash, and apply with a white-wash brush to the bodies and

larger limbs. If rabbits are troublesome, cover the lower part of the bodies of the small trees with tarred paper or put tin around each—old fruit or oyster cans will answer. Gather material for compost, such as the debris of the garden, rotten wood, mould and coarse manure with lime, ashes plaster, and form a heap level on top, and use upon it soap-suds and liquid manure. Turn it over once or twice during winter, adding material, so that by spring you will have a fine supply of rich compost for the garden. Keep it sufficiently moist to prevent it fire-fanging or burning.

In the Southern States, all early vegetables, such as peas, beets, parsnips, carrots, onions, &c., can be planted. Their trees and vines should be pruned and other work forwarded, which in our climate must be deferred to a later period.

For the Maryland Farmer.

Wheat Growing—Secure the Best.

Unquestionably, *wheat* is the most important crop grown by farmers, considering all regions, all the demands, and the constant money value of it; though all other grains, as well as roots, &c., are valuable food plants, yet wheat, the world over, is the type and representative of *life food*, "the staff of life;" there is no age or nation where it does not always command a remunerative cash price. Its abundance or scarcity, more than any other commodity, affects notably the exchanges and finances of all civilized nations; even, frequently, it determines the peace and stability or tumult and rupture of governments, causing almost radical revolutions. And further, we begin to see how inevitably foreign nations are being compelled, more and more, to depend upon our country for breadstuffs, and it is our duty and interest to meet the contingency to the largest extent in our power.

In view of these facts it is of the greatest importance that our farmers should learn the most effective modes, possess the fullest knowledge and secure the largest facilities, possible to be availed of, in order to render them as effective as can be to meet these extended, growing and sacred wants, of our race everywhere; hence, all information or suggestions which can aid that efficiency, are desirable and should be disseminated, not because *all* of our farmers need additional knowledge of improved systems, but because *some* may need better information.

To that end—promoting the increased efficiency in growing wheat—the typical cereal—I propose preparing a couple of brief essays on that topic, in which will be clearly presented the most uniformly successful modes now adopted, substantiated

with facts and figures of real results by various operations; with the particular modes pursued in obtaining highest results.

GOOD SEED—PURE AND SOUND.

The first requisite for highest results, is the producing or procuring of good seed; this is done in two ways—by *hybridizing* and by *pedigree*, the latter being preferable and more easy of accomplishment, by farmers generally. It was by the *pedigree* process that Maj. Hallett's and Mr. Mold's wonderful varieties of winter wheats were produced, which have given them, variously, from 65 to 90 bushels to the acre. They began by selecting those stalks and spots in the fields of grain in which there were most stalks from a single kernel, where the heads were longest and fullest, with plumpest berry, where the straw stood up firmest, and where the ripening was earliest; these stalks, with superior heads and grain, were marked and allowed to stand till perfectly ripe, then gathered by hand and carefully thrashed and cleaned for seed the next season; before sowing it, this seed was soaked several hours in salt brine, then dried with lime or plaster; from its product, again, the best heads were carefully selected as above; and so on, for several seasons, the most perfect and productive grain, each year, being selected for seed, as the best animals are chosen to breed from, until the best possible result is produced; this is *pedigree* and stock.

Mr. J. L. Perkins, Mr. Harman Rawson, Mr. Arnold and others, in this country, have met with distinguished success in similar operations; and following up the system wonderful yields have been obtained. Mr. Hallett, of the Midland Farmers' Club, England, got from 5 pints of his *pedigree* wheat, sowed in drills 12 inches apart, and single kernels 10 inches apart in the drill, over 1,000,000 heads of plump grain, on one acre of ground, showing an average of 23 heads for each grain, and averaging 48 kernels to the head; and giving 108 bushels the acre for the five pints of seed.

Mr. J. L. Perkins, of Little Sioux, Iowa, having obtained a small quantity of choice wheat, and desiring to get as much as possible from it, cultivated his land deeply, pulverized it very fine, then planted his seed in drills one foot apart, and the kernels same distance in the drills, frequently hoed it to keep down the weeds; when ripe he found some instances in which 85 sound heads were produced from a single grain, some heads being 7½ inches long, and one head was found containing 95 kernels; the whole patch making a yield of over 100 bushels the acre, a result, it will be seen,

about as good as that of Mr. Hallett, in England.

A careful system, pursued year after year, of selecting the best heads and allowing them to become perfectly ripe, then carefully cleaning and brining, before planting, on ground equally well prepared, will ensure continuously large yield, without equally increased cost in the operation.

AT WHAT STAGE TO HARVEST.

Although the wheat for seed should be left to stand until it is perfectly ripe, yet, for the most profitable market and milling purposes, it should be harvested somewhat sooner, before it is hard and while in the *dough* state, when the straw just begins to turn yellow near the ground, but is green above. Some years ago, as reported in annual report of Agricultural Department, an old, intelligent farmer made the experiment in cutting a portion of his wheat, when in the *dough* state, and another, when fully ripe and dry; then had both carefully thrashed and cleaned, and made into flour, with the following result, of 100 lbs. ground:

That cut in the *dough*, made 80 pounds flour, 5 pounds of shorts, and 13 pounds bran, and 2 pounds waste.

That cut fully ripe, made 72 pounds flour, 11 pounds shorts, and 15 pounds bran, with 2 waste; in the last few days of ripening, the bran is increased at the expense of flour; and it is the general opinion, with the Hungarian and Vienna millers, as well as many others, that more and better flour is made from wheat cut before perfectly dry and ripe, than when cut later. Then there is also much less danger and loss from storms, insects and shelling, with grain cut thus early, than if more fully ripe; while the work is better done.

SECURITY AGAINST RUST AND SMUT.

Numerous careful and reliable experiments prove that security against *rust*, smut and other troubles is much greater — almost certain — in this early stage of harvesting.

To show the effectiveness of early harvesting in lessening or preventing the destruction by rust, I quote a statement from Mr. Klippart's work of the results of experiments by an observant wheat grower, in Preble county, Ohio, some years ago. He sowed three fields of equal size and character in the autumn with winter wheat, all of the same variety; the 20th of June rust made its appearance alike in all three fields. He at once harvested one field, while the grain was yet quite soft, leaving it to ripen in the swath; the second field, he cut four days later; and the third field, three days later still. The result was that the first field cut, gave 12 bushels the acre of good wheat, weighing 56 lbs. the measured bushel; the second cut, gave 8

bushels the acre, weighing 46 lbs. the bushel; and the third cut produced almost nothing but poor straw and chaff, not worth harvesting. The next year the same farmer sowed three other fields, at the same date, similar soil, seed and treatment; the *rust* again made its appearance; he cut one field immediately, while the grain was milky, and so green that it was left unbound; the second was cut six days later; and the third, several days later still. Result: No. 1 gave 25 bushels the acre, weighing 64 lbs. the bushel; No. 2, about half as much, weighing 56 lbs.; No. 3, eight bushels, of very poor grain; these suffered from rust and fly in proportion to the lateness at which each field was cut.

We have met many other similar evidences of the marked advantage of cutting wheat before it is fully ripe and hard; and if we can do anything to induce farmers, generally, to cut their wheat from six to ten days earlier than usual, we shall do them a benefit which they will appreciate.

D. S. C.

Southern Crops.

The most substantial and conclusive facts relative to the progress of the South, and its ultimate great success are seen in the figures presented by the Bureau of Statistics relative to the production of Southern staples—cotton, tobacco and sugar. A steady but sure advance has been made in the direction of prosperity. Gifted by nature with the most charming climate, fertile soil and well watered surroundings, the Sunny South stands forth as the garden spot of this country. So much has nature done for this section, causing it to bloom and blossom with fruit and vegetation, that with us, it becomes no matter of surprise and wonderment that the people were fond of their ease, and were more or less indolent. Of course a revolution in sentiments has by the war ensued, and we sincerely feel that the change has been for the better. Slavery has been abolished, and for its abolition, the South, as one man, will one day be thankful. These changes have been instrumental in causing the planters to give personal attention to their business, the wife and daughter to give direct superintendence to household affairs, the young men to enter actively into pursuits of a practical character. Extravagance is no longer the rule, whilst hospitality still abounds, and penuriousness is the exception; yet the lavish hand of extravagance which once characterized the Southern people has been stayed, and appropriate economy and frugality have asserted themselves. Our faith is in the South. We firmly believe that this section

is destined to hold a prouder position in the galaxy of States than it ever has done. As an illustration of the strides the South is making in material wealth, we publish the following table of figures, showing the aggregate production of the three great staples for each year since 1870:

	Cotton bales	Sugar hhd's	Tobacco lbs
1870-'71	4,352,317	144,881	385,000,000
1871-'72	2,974,311	128,461	426,000,000
1872-'73	3,930,509	163,500	483,000,000
1873-'74	4,170,384	89,493	506,000,000
1874-'75	3,832,991	116,867	315,000,000
1875-'76	4,669,288	141,146	522,000,000
1876-'77	4,485,923	168,331	535,000,000
1877-'78	4,811,422	127,753	560,000,000
1878-'79	5,100,000	about 212,000	572,000,000

These figures show an increase of present crops and prospects compared with preceding year of nearly 300,000 bales cotton, 85,000 hogsheads of sugar and 12,000,000 lbs. tobacco. These are powerful and substantial causes for gratification.—*Balto. Market Journal.*

For the Maryland Farmer:

Lessons from the Fairs.

The person who has attended different agricultural exhibitions, has spent his time to little account if he has received no lessons from circumstances connected with the fairs. In the case of very many exhibitions of the present day, taking into account the manner in which they are conducted, with a manifest want of all thought of the great agricultural interests of the country, it is somewhat questionable whether an adequate benefit is derived to the farming community to warrant their giving to them any countenance or support.

Under any ordinary circumstances, a farmer would be looked upon as extremely foolish to make expenditures for that which was to give no corresponding return in some form, and yet it is to be feared that in too many instances this is the case with farmers who patronize some so-called agricultural exhibitions. Upon the ground of holiday recreation, it would be far better for the farmer to take his family to a place that is more devoid of temptation and snares, than some fairs that are held.

To take some illustrations; the Western New York Agricultural (?) Society held an exhibition on the Trolting Park, a little north of the city of Rochester. This is a good farming section of the State, and the farmers are deserving of an organization and exhibition that would honor them, but which can hardly be expected when the society is controlled in such a manner as to allow the free and unlimited sale of lager beer, as it was at their late

exhibition. And never yet was a society more destitute of courtesy than this. The meeting of the American Pomological Society was held at Rochester during the fair, and by previous agreement, the pomological exhibition by them was to be made on the fair grounds, and the usual courtesies extended, but upon arriving there, notwithstanding a magnificent exhibition of fruits, the society was in no way recognized; nor was that all, members of the Pomological Society who had fruit to unpack and arrange, were obliged to pay extra, because they sought admission before the hour for opening, as was stated by Mr. Husman and a friend from Missouri.

Mr. Husman was very justly indignant from the fact of unusual courtesies extended by himself at a similar meeting at St. Louis.

Now, the lesson to be derived from this exhibition, is that on the part of the managers there was no real disposition to give proper encouragement to interests very closely allied to the more immediate tillage of the soil. But, on the contrary, a business that is calculated to ruin the peace of families, produce distress and poverty, cause crime and disgrace, found a prominent place and full advertisement in all directions. If the aim of an agricultural society is so low and unprincipled as that, it is high time that such society is allowed to sink into obscurity, unmourned by any portion of the community.

In the common walks of life, with the besetting temptations, calculated to allure the young from the path of rectitude, honor and sobriety, there is danger sufficient, without bringing them within the influence of a maelstrom that is liable to engulf without hope of recovery. But dangers also lie in other directions. In some societies, alas! in far too many, the temptation to secure gain, by fostering the unlawful practice of games of chance as exhibited on wheels of fortune, &c., is too strong, and the evil is even protected upon the grounds, and the danger is all the greater, because of the studied appearance of fairness in game, in which the individual is sure to be duped. It would be far different if the influence was to be brought to bear upon mature persons; but such is not the case, nor is it the intention; the design is to ensnare some unsuspecting youth, which may result in his ruin. The thought is appalling, and yet societies officered by good moral and even Christian men allow these evil and exceedingly pernicious practices to prevail. It may seem like strong language, but it were better that every agricultural society in the community were annihilated than any single noble youth should be dragged down to ruin, by temptations that were offered at any un-

principled society. Purely agricultural societies are an honor to any community, and should be encouraged by all honorable and legitimate means; such societies would afford a place of pleasant recreation of many a young man and maiden; but the best interests of our whole country forbid that any masked batteries should be planted, that are to be discharged at the youth, the glory and future hope of this republic. No, a thousand times no, let them rather be safely conducted by the pathway of faithful citizenship to a peaceful and honorable old age, free from any vices that ultimately dethrone manhood.

WILLIAM H. YEOMANS.

Columbia, Conn.

How to grow Sugar Beets.

The members of the Franklin, Mass., Farmers' Club recently appropriated a sum from their treasury, sufficient to publish and circulate a thousand copies of the following "Rules" for the cultivation of sugar beets. The pamphlet was prepared by a committee appointed for the purpose, of which Gardner Adams, Secretary of the Club, was chairman:

"The introduction in Franklin of a beet sugar manufactory invests the subject of beet root culture with a new interest and importance to the farmers of this vicinity.

"The design of these pages is to give such practical information upon the subject as will enable farmers to take advantage of the experience of successful cultivators, and thus avoid errors arising from inexperience. The two branches of this industry—raising the beets and making sugar from them—must go hand in hand, for they are mutually dependent upon each other.

"Confidence, and a careful compliance with necessary conditions, will insure a large return for labor in raising this crop, for there is no question but that beets can be cultivated successfully upon the farms all about us. Prof. C. A. Goessmann of the State Agricultural College, at Amherst, says in a recent lecture:

"No root crop is better worth cultivation in this section. The necessary expense does not much exceed that of raising any similar crop. In nutritive qualities the sugar beet is almost equal to the potato, and twenty-five tons to the acre is an average yield, so that for feeding purposes, aside from a ready cash value, when sugar manufactories are at hand, it is decidedly the most profitable root crop that the New England farmer can give his land to, and when the roots can be turned over to a manufactory, the cash price obtained is almost a

clear gain, for the pressed cakes (pulp) from which the saccharine juice has been extracted are almost as valuable for feeding purposes as the unground roots. Five tons of roots make one ton of pulp, and three tons of pulp are equal to one ton of good hay for feeding purposes. What may be called the indirect benefits, of its cultivation are unusually great. The crop pays for a thorough cultivation that leaves the ground in the best possible condition for other crops. In France it has been abundantly proved that the land produces much more per acre of all staple crops than it did before the beet culture was introduced.

"Beets should not be grown upon the same land but one year in three, rotating with such other crops as the farmer may find most profitable.

CHOICE OF SOIL.

"The beet requires a deep permeable soil, for its roots penetrate deeply into the ground and are abundantly supplied with fine fibres through which it receives its nourishment. If the soil does not permit the root to grow down freely, the top will be forced to grow above the ground, and the crown which grows out of ground is nearly worthless for sugar purposes. A deep sandy loam is the best soil to produce beets rich in sugar.

"They will, however, grow on a variety of soils, and any soil which will plow and sub-soil to the depth of twelve or fifteen inches is a good beet soil. Avoid all wet lands and muck bottoms as unsuitable.

"Beets will not flourish upon wet lands, and what grow are not sweet. Muck bottoms produce large tops but small roots, with little sugar in them.

PREPARATION OF THE SOIL.

"Deep plowing and thorough cultivation of the soil is absolutely necessary. The ground should be surface plowed to the depth of seven or eight inches, followed in the same furrow with a sub-soiler to the depth of twelve or fifteen inches from the surface of the ground.

"The land should be thoroughly pulverized by the harrow, and a surface obtained. Land which was plowed and manured last year is best. Sod land should be first treated with other crops. If sod land is used, bury the sod as deeply as possible; thoroughly pulverize the earth above the sod, leaving the sod to slowly decay below. Land plowed the fall before can be got ready earlier in the spring, and is therefore preferable.

FERTILIZERS.

"The following is substantially Prof. Goessmann's testimony upon the subject:

"The character of the fertilizers used is of the first importance. Sugar beets contain phosphoric, saccharine and nitrogenous elements. The effort must be to increase the proportion of saccharine constituents, while keeping the nitrogenous at as low a figure as is compatible with the proper development of the roots for the tendency of the nitrogenous products is to rapid decomposition, and if the beets are too well supplied in this re-

spect they cannot be properly kept from harvest time till the close of the manufacturing season."

"The sugar beet should never be fertilized with fresh animal or barn-yard manure. If necessary to use such manure, to get the full benefit without any of its bad effects, it should be applied in autumn and plowed in deep; the beet is a deep feeder. If it is necessary to manure in spring, use only well-rotted compost well plowed in. When stable manure is largely used, sugar beets are usually raised in a rotation after a heavily manured grain crop; thus allowing for the thorough disintegration of the manure.

"Mineral fertilizers are much better than others several accounts.

1. They may be proportioned to the actual requirements of the crop.

2. They may be more quickly and cheaply applied.

3. They introduce no weeds.

4. They cost much less in proportion to their productive power than stable manures, which for these reasons, may be more profitably used upon other crops. Potash and phosphoric acid, with a small percentage of ammonia, are the principal chemical agents with which it is necessary to supply the soil.

"A large proportion of potash, in particular, is found to be necessary to grow beets which will yield the largest amount of sugar.

"Fertilizers specially designed for beets are now sold for \$2.50 per 100, and from 800 to 1200 lbs. per acre are used. A change in proportions will doubtless be recommended before next season.

"Mineral fertilizers may be sown broadcast and harrowed in.

"Superphosphates should never be used on lime rock soil, or on land recently treated with lime, as the two combine and become simply phosphate of lime, which is insoluble.

"Farmers who have used superphosphate without good effect may find this to be an explanation of the cause.

TIME OF PLANTING.

"Early planting is especially important. The seed sprouts best in cool, moist weather. The young plant thrives in the rains of early spring. By early planting, the beets get the start of the weeds. At first the beet grows slowly, but when once fairly rooted it becomes very vigorous, so that later in the season, after thinning and weeding, it will take care of itself. Early planting enables the farmer to get the thinning and weeding done before haying. Commence sowing as soon as the ground is in a fit state—warm and dry enough to promote rapid germination.

PREPARATION OF THE SEED.

"The following directions from Grant's treatise on the sugar beet may be easily tested if deemed of sufficient value:

"The irregularity of the seed, in both shape and size, render it necessary to separate the different sizes in order to facilitate the operation of sowing and to prevent the clogging of the seed sower, the result of which would be to leave long

spaces in the lines without any seed. The seed should be passed through a screen with meshes sufficiently fine to retain all the seed that would not pass easily through the gauge that regulates the passage of the seed through the machine. The seed which does not pass should be rubbed gently between two boards to reduce them to a uniformity of shape and size that permits their easy passage through the screen. (This process is not required for seed sown by hand.) Then steep the seed in the following solution: Dissolve nine ounces of sulphate of potash and an equal quantity of sulphate of lime in from four to five quarts of warm water. Then add five or six gallons cold water, and use sufficient to cover the seed. Steep five or six hours, drain off the liquid and put in a vessel with either wood ashes, slaked lime or ground plaster Paris, and mix so that each seed may be in a degree coated with the material. Then sow when sufficiently dry to work readily in the machine. This treatment facilitates the germination of the seed, and in a measure guards it against destruction by insects."

Some Maine farmers simply wet or soak the seed in water, while others sow it dry. Much must depend on the season and nature of the soil, whether wet or dry, and also whether the seed is sown early or late.

PLANTING AND EARLY CULTIVATION.

Lay out the rows perfectly straight, as it is economy in the subsequent cultivation. A strip sufficiently wide for the turning of teams should be left at each end of the field. For the purpose of marking the rows, nail to a board strips about one foot long, two inches wide and one inch thick, like the runners under a sled; these should be at the distance the rows are to be apart, which may be as follows: Two rows eight inches apart, to begin with, then a space three feet wide, followed again by two rows eight inches apart. Fasten the board tightly to a common one-horse cultivator, or some other contrivance. Allow the two strips at one end of the board to go in the previously made lines, which will make them more perfect, and serve as a guide to insure uniform spaces between the rows and make all the rows straight; provided that the first made are straight. The lines should not be over one inch deep to receive the seed. The field thus prepared and marked should be planted without unnecessary delay. First, because the soil loses the moisture quickly on its surface which is required for germination of the seed; and second, because every hour's delay gives the weeds a start over the crop.

The seed planted by hand or drill should be placed at an even depth of half an inch—in no case over one inch deep. Planting by drill requires fourteen pounds of seed per acre, and to use less is very bad economy. Planting by hand requires less seed, but takes more time and labor. In planting by hand proceed as follows: Take a small stick eight inches long; keep this stick in your left hand, in which you also carry the seed; take in the fingers of the right hand a few seeds and press them about half an inch into the ground, using the whole hand to cover them. The stick will act as a guide by using it occasionally to to plant the seed uniformly eight inches apart. A second method is to either drill or hand plant all

the rows uniformly twenty-four inches apart, with the plants eight inches apart in the rows. This will give over 32,000 beets to the acre. As soon as the seed is sown, the ground should be rolled to hasten germination. A narrow roll is preferable, which leaves the space between the rows light.

The beet usually shows in about ten days, but the time varies in accordance with the nature of the soil and season. If the plants do not appear in the usual time, the seed must be examined in several parts of the field, and if they are found rotten, the vacant spaces should be replanted at once, if it is not too late in the season.

WEEDING.

If the weeds show thickly before the beet is up, and the lines made by the seed sower are plainly visible, the cultivator may commence at once, for it is absolutely necessary that the field should be kept free from weeds, and the soil loose. As soon as the plants can be seen above ground, run the cultivator or horse hoe between the rows. This cultivation is necessary, both to destroy the weeds and break up the crust, in order to let the air penetrate into the soil. A light hoeing is fully as good as running the cultivator between the rows. Farmers will understand the importance of this first early hoeing. It will greatly increase the the yield, and will gain ten days in the maturity of the crop.

TRANSPLANTING.

In case there are vacant spaces in the lines, leave enough plants in the adjoining rows to transplant as the beets are large enough. This can be best done when the the beets are about one-half inch diameter. A moist day should be selected and the plants taken up with a spade or with a transplanting trowel. Care should be taken not to injure the roots and in replanting to keep them straight, lest it should cause forked and mishapen roots. Holes should be made about five or six inches deep with a plug of hard wood eight or nine inches long and an inch in diameter, tapering down to one fourth inch at the end, which should be rounded off. Take the plant by the leaves with the left hand, make a perpendicular hole with the plug in the right hand, carefully insert the root in the hole, taking pains to keep it perfectly straight. Keep the crown of the beet on a level with the surface of the ground; crowd the earth against the root with the plug; place a little earth about the plant, and press the soil about the root with both hands. Pinch off the long leaves, and the operation is complete.

THINNING OUT.

Careful thinning out at the right time is the most important part of the work. The best time is when most of the roots have reached the size of a slate pencil.

If they have been planted by a drill in a continuous row, the easiest way is to cut out the spaces with a sharp hoe deep enough to make it sure that no beet will grow again, leaving the plants eight inches apart in the row. Retain the best and largest plant in each bunch, removing all the rest. Take hold of it with your left hand and press it downward, while you take the others in

the right hand; give the bunch in the right a twist and pull them sideways and upward. Do not pull them straight up, because by so doing you will loosen the one you wish to remain, so that it will take many days to regain its strength. Be careful not to break off the leaves only, leaving the roots still in the ground, for these would grow again and cause double work. No two beets which grow close together ever amount to anything in weight. Therefore it is well, about a week after the thinning, to look over the field, and wherever two are found, one must be taken out.

The thinning can be done best after a rain, even if the land is too wet for any other work. It can be done by children as quickly as by grown people. But it should be done thoroughly and not too late. After the beets are the size of one's finger they cannot be disturbed without great injury. The thinning should be done before haying begins. When the beets are thinned out and have fairly started the crop is almost secure, for soon the leaves will attain their full size, will cover the ground, and by their shade will prevent the weeds from growing. Until then the ground should be kept clean and loose. Beets should be hoed or cultivated thoroughly more than once before thinning. No plant is more grateful for cultivation than the sugar beet, or yields a more bountiful harvest for care bestowed.

Later in the season pull the scattering weeds and cut off the flower stalks of the few beets that give indications of producing seed, for the roots that are permitted to go to seed will not contain a particle of sugar. If the beet shows a tendency to go to seed while it is yet small, it should be pulled up, but cut off the flower stalk.

The needful conditions to insure a good crop are: Deep ploughing, thorough harrowing, good fertilizing, early planting, plenty of seed, timely thinning out, careful hoeing and weeding. With these conditions and a favorable season a good crop is certain.

Mr. W. W. Harris of Cumberland, Me., President of the State Board of Agriculture, gives his experience in raising beets as follows:—

"I have raised beets every year for five years. I first raised the genuine sugar in 1878 to the extent of two acres. The soil is clay loam. In 1878 it was worn out grass land, cutting only half a ton to the acre. That spring (1877) I ploughed it and put in turnips, no manure except Stockbridge's special manure for turnips. I got fair crop. In the spring 1878 I underdrained the land and then ploughed it once nine inches with Frye's No. 3 steel plough. Then I harrowed it thoroughly with Share's harrow. I marked out my rows thirty inches apart and two inches deep with a light horse hoe. I then strewed beet fertilizer in the drills at the rate of three bags (600 pounds) to the acre. I then covered the fertilizer about one inch deep. I then ran my seed drill over the fertilizer and used plenty of seed. This was late in May. My drill covered the seed about one inch deep. When the beets were about the size of a slate pencil I thinned them out, leaving only one beet to each eight inches in the rows. This thinning out and first weeding was the only work I did by hand. I afterwards cultivated them with

a horse cultivator twice only. My crop was 22½ tons tons per acre. The only manure I have used on the land for past two years has been the Stockbridge fertilizer. Upon land which was thoroughly manured last year a good crop of sugar beet can be raised with beet fertilizer alone. I am going to plant ten acres of sugar beets this year on contract with the Maine beet sugar company. I shall use no other manure than the beet fertilizer."

The National Fair Association.

The National Fair Association, of Washington, D. C., opened their first exhibition on their beautiful and eligible grounds on the 28th of October, and continued to the 7th of November, inclusive. It proved to be not only an agricultural fair, but a great exhibition of the commerce, numerous industries and every variety of employments of this country. The arts and the sciences were practically illustrated. There were many great attractions in the way of various sports, and altogether, it has thus far added a superior attraction, which call visitors from all parts of the country to the capital of the nation.

Judging from the substantial way the buildings have been erected, their size and the judicious arrangements of them, we conclude that the association looks forward to a long continuance of this National Institution. Great credit is due to the officers and working members of this Society for the great amount of excellent work which was done under their direction in an incredible short time. Another year will add greatly to the finish of the grounds and buildings.

Our Baltimore exhibitors were quite successful, Messrs. Bibb in the stove line, Baltimore Plow Co. for several agricultural implements, the Roland Chilled plow among others, the Messrs. E. Whitman, Sons & Co., for Fanning Mill, and, as usual, for their Corn and Cob Crusher, &c., J. Thomas for best Grist Mill, Mr. H. F. Whitman for Pigeons, and several other gentlemen who were exhibitors from this city in other departments. Hon. John Merryman carried off all the premiums for Herefords. Gen. G. S. Meem of Va., was awarded a special premium for the best herd of Short-horns, and a first premium for his Cotswolds and South-Down Bucks.

We have to thank the management for a complimentary ticket to the MARYLAND FARMER, which we availed ourselves of the only day we could spare, regretting that business prevented our longer participation in the scenes and events that were so gratifying to the visitors at this great show.

Orchard Grass.

Botanists are acquainted with some six thousand species of grass. Farmers know thirty kinds, and only these, or a very few more; while hardly a farmer sows and grows more than two or three kinds. Are there not others, outside of two or three with which we are familiar, and more profitable than they? Are there none beyond the thirty suitable to the farm?

What suggestiveness should the questions have for botanical professors at our agricultural college farms? What an interesting and very useful feature it would be to have a hundred plots of ground growing a hundred sorts of grasses to show the farmers when they choose to call, and how much *oftener they would call!*

Says John Stanton Gould: "Each species has some special niche to fill, some separate part to play in the grand harmony of Nature; each was designed to occupy a position of utility; each one is adapted to some purpose, or for some some soil or climate or locality better than the other." This we know; and yet in all the thousands of years of human history, but some thirty grasses have been taken from Nature and adopted into the small family of domesticated plants.

Every now and then there is an attempt to popularize and extend the area devoted to a particular grass; just now it is the orchard grass (*Dactylis glomerata*). L. F. Allen speaks very highly of it. He writes in the *Country Gentleman*: "People not experienced in the growth of orchard grass suppose it will run out after a few years' occupation of the ground. To confute such idea, I have about an acre of it on my farm, sowed by myself about forty years ago, mixed with red and white clover, timothy and blue grass; soil, clayey loam. It has been mowed and fed closely every year since, with no manure at all, or scarcely any, that I can recollect, and it is now a heavy crop for hay uses. I admit that the present season is an uncommonly early and favorable one in this vicinity for grasses. Yet the orchard grass is always as good and productive as timothy, with the advantage of being nearly two weeks earlier for hay purposes, coming exactly with red clover, the latter maturing for cutting too early for timothy, when grown together. For soiling—green food uses—orchard grass is the best I know. Sow in the spring of the year, two bushels to the acre. Another advantage for orchard grass is its *earliness*, as well as *lateness*, for pasture, and its hardihood and duration in the soil. It will not run out sooner than blue grass—*Poa pratensis*—at least I have had them together for forty years, and they look equally good now as ever."

This for New York or clayey loam, while for Vermont on a different soil Dr. Hoskins writes: "Mr. Allen seems to think orchard grass not so well adapted to light soil; but we believe this is only true as it is true of all grasses. It does excellently on our own moderately light land, and also on still lighter soils in the vicinity. But on such land it needs manure, the same as timothy, while it is not nearly as liable to run out."

Mr. Gould in his work on grasses speaks of it with enthusiasm, and Mr. Flint brings out in his works many testimonials in its favor. Mr. Gould says, "It affords a good bite earlier in the spring than any other grass, except the meadow foxtail (*Alopecurus pratensis*). It affords a very great amount of aftermath; it is exceeded in this respect by no other grass except Kentucky blue grass (*Poa pratensis*), and it continues to send out root leaves until very late in the autumn. It is really surprising to see how rapidly it springs up after mowing, or being fed off closely. Its sudden reproduction under these circumstances completely verifies Virgil's description:—

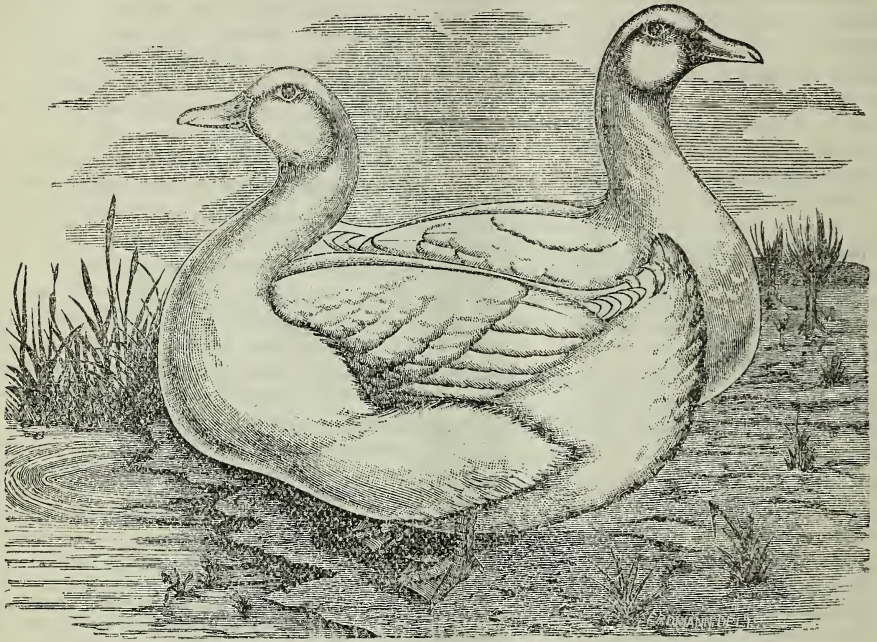
"Cool dews restore, beneath night's transient hours,
All that the herd each livelong day devours."

"It has been objected against orchard grass," continues our author, "that it is coarse and is disposed to grow in tussocks; this is no doubt true; but if the meadow is dragged over in the spring with a fine-toothed harrow, and then rolled, this disposition will be completely overcome, and the meadow or pasture will be as smooth as can be desired. . . . It succeeds best where the subsoil is porous, as in rich, sandy loams, allowing its roots to penetrate deeply. . . . But where a thin soil rests upon a tenacious sub-soil retentive of moisture, it is not very vigorous; it may be successful at first, but the slight hold of the roots upon such soils makes them liable to be drawn out by cattle, and the massy production of foliage which affords an ample bit and purchase upon their roots so facilitates their destruction that the pasture soon becomes thin; and if dry weather ensues, it loses in an accelerated ratio, and thus the pasture is ruined.—*Scientific Farmer*."

Reducing Bones.

In the discussion on wheat at the late Agricultural Convention in Newport, N. H., Mr. Platte, of Warner, gave a formula for reducing bones as follows: Place them in a large kettle mixed with ashes, and about one peck of lime to a barrel of bones. Cover with water and boil. In twenty four hours all the bones, with the exception, perhaps, of the hard shin bones; will become so much softened as to be easily pulverized by hand. They will not be in particles of bones but in a pasty condition, and in excellent form to mix with muck, loam or ashes. By boiling the shin bones ten or twelve hours longer they will also become soft. This is an easy and cheap mode of reducing bones. If the farmer will set aside a cask for the reception of bones, he will be likely to find a valuable collection at the end of the year.

POULTRY HOUSE.



PEKIN DUCKS.

We are enabled to furnish the above life-like picture of a pair of these fine ducks, as seen in the poultry yards of Messrs. Benson, Maule & Co., of Philadelphia. They speak of this breed of ducks as follows :

"Although of recent introduction into this country they have become remarkably popular in a very few years. They are a valuable acquisition, and already gained the supremacy over the other varieties. They are in very large demand, which proves their real merit. The plumage of the Pekin duck is of a cream white, and they have yellow bills and orange legs. Altogether they are very ornamental, so much so that they are kept on this account in some of our public parks. Their average weight is about 13 to 15 pounds per pair. They may be said to be the largest of all the different varieties of ducks, for they will, as a rule, considerably outweigh either Rouens, Aylesbury or Cayugas. They appear decidedly larger than any of those ducks on account of their loose, fluffy feathers (common alike to all Asiatic fowls), but sometimes they are equalled in weight by the the best Rouens, as at the Albany State Fair last year, where our Rouen ducks won the first premium and outweighed the Pekins. They are also highly esteemed for their

early maturity, hardiness, flesh and eggs. They are decidedly the best laying ducks known ; and on an average drop perhaps twice as many eggs as any other breed. It would probably be quite in the bounds of truth to say that they will average 125 eggs in a season. A single duck has been known to lay 200 eggs.

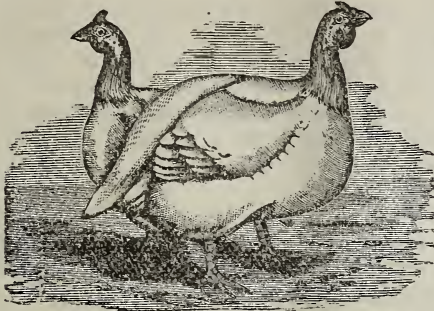
They are easily confined and require no more water than hens. Altogether they are the most valuable addition to our domestic fowls."

To PICKLE EGGS.—Sixteen eggs, one quart of vinegar, half an oz. black pepper, half oz. Jamaica pepper, half an oz ginger. Boil the eggs for twelve minutes, then dip them in cold water and take off the shell. Put the vinegar, with the pepper and ginger, into the stewpan, and let it simmer for ten minutes. Now place the eggs in a jar, pour over them the vinegar, &c., boiling hot, and when cold tie down with a bladder to exclude the air. This pickle will be ready for use in a month.

GIVE the fowls a variety — corn, wheat, oats, buckwheat, cooked vegetables of all kinds, fruit, refuse of the table, raw cabbage in winter, grass of any tender variety in summer. Variety is the spice of a fowl's life as well as of man's. Meat should be fed often.

Guinea Fowls.

We are also indebted to the same gentlemen for the following cut and description of those beautiful and useful birds, the Guinea Fowls.



"Guinea fowls are a more profitable fowl than is generally supposed. They are good egg producers, laying on an average from sixty to one hundred per annum. As a table fowl they are very superior, their flesh being of rare delicacy. The hens do not begin to sit until about August, consequently their first eggs should be placed under a common hen. The period of incubation is twenty-six days. Guinea chicks are among the easiest to raise. The first few days they should be kept from wandering by penning them up closely, and should be fed like ordinary chicks. When they have been somewhat hardened they may be set at liberty, when they will prove to be good foragers. It is difficult to distinguish the sex of the young chicks, but this may be determined by watching their movements, and from the fact that the wattles of the male are somewhat larger than those of the female."

FATTENING TURKIES.—It should be remembered that plump, well-dressed turkeys, not only bring a high price in market, but enhance the reputation of the producer, and make his market sure for future years. The turkey is one of the finished products of the farm, and one of the greatest luxuries in the market. The farmer should do his best in preparing his stock for the shambles. The main business now is to lay on fat, and the bird should have, every night and morning, a full supply of nutritious and fattening food. Instinctively the turkey follows his feed, and if the supply is abundant at the farm yard, he will not stroll far from home. Boiled potatoes, mashed, and mixed with meal and fed moderately warm, is a very excellent feed both to promote growth and to fatten. If the pigs can be robbed of a quart of their milk, and it is mixed with a part of the hot potatoes and meal, it will very much improve the dish.

It is very desirable to supply the place of insects with some kind animal food, and butcher's scraps is one of the cheapest and most desirable forms of food for poultry. Grain should be given at least once a day with the soft and warm feed. Nothing is better than sound corn. The northern corn is thought to contain more oil than that of southern growth. Old corn should always be used for this purpose. The new corn keeps them too loose. In feeding, only so much corn should be thrown out as the birds will eat up clean. Take a little time to feed them, and study æsthetics, as you watch the iridescent hues upon the glossy plumage. There is nothing more charming upon the farm in the whole circle of the year, than a hundred or two of these richly bronzed turkeys feeding near the corn crib. You can afford to enjoy the disappearance of corn, while the turkeys are increasing in weight. Dreams of a full wallet at Christmas will not harm you as you look on this interesting sight.—*Valley Farmer.*

Give your fowls plenty of dust or coal ashes as a bath; also lime, rubbish and gravel, together with proper food, and you will be rewarded by healthy fowls and a generous supply of eggs. With all the other directions which are given for the prevention of diseases among poultry, none is of more importance than that of having clean, well ventilated houses.—*Poultry Yard.*

French poultry fanciers who make a specialty of raising fowls for the market, are now feeding their poultry with boiled and steamed carrots. Its rapid fattening qualities are something wonderful, and it is said that the root also imparts a peculiar flavor to the flesh that suits the taste of the French epicure exactly. The large yellow carrots are considered best for this purpose.

A breeder of poultry says:—"Every spring I procure a quantity of cedar boughs and scatter them plentifully in and around the hen-house. This is all that is necessary, as the odor of cedar keeps away lice. This remedy is cheap, simple and effective, and is worth trying."

Mr. W. Crozier has lately sold six Ayrshires to the Hon. H. B. Hyde, President of the Equitable Insurance Co., of this city, for \$1,000, all calves but two. He has also sold the Ayrshire Bull, Dairy Boy, to Rob. McElroy, Charleston, S. C. . . . Mr. C. has also lately added to his herd the young bull, Brookdale Chief, full brother to the celebrated Jersey cow Filbert, which was lately sold for \$1,500. . . . Mr. C. remarks that if the cow is worth so much, a bull equally good is worth at least double as much, as his descendants may be at least 40 times as numerous as hers. *Ex,*

THE DAIRY.

For the Maryland Farmer:

The Milk Supply of Large Cities.

A CHANGE DEMANDED IN THE METHOD OF DISTRIBUTION.

BY D. W. WILLSON.

The great dairy industry of the country is at this present time receiving more attention than any other branch of farming, and very justly too. The demand is for fine goods, for the best that skill and care can produce, not only in this country, but in all. Dairy fairs are being held and associations formed in various parts of the world, the best breeds of cattle for dairy purposes are being considered, means of improving and increasing the product are devised, invention is directed to devise new methods of securing the best results, associated dairying in place of industrial farms has largely increased, and generally a very decided change is not gradually, but by rapid strides taking the place of the old methods. With much of this we do not propose to deal at the present time but of one particular phase, viz: that of supplying large cities with pure milk.

The first and most important factor in this much to be desired end is dairies of superior cattle with buildings and appliances adapted to the production of the largest amount and best quality of milk. A very large amount of milk in many of our cities is produced on small farms situated within a radius of fifty miles, delivered daily either in wagons to consumers direct or shipped in large forty quart cans by rail or water transportation to dealers in the city, and by them to be distributed. Milk being a perishable article must be consumed fresh, and the supply being nearly uniform, while the demand is variable the margin to the dealer must necessarily be larger than of other products of the farm that can be kept for an indefinite period. Ordinarily the farmer realizes about one-third what the consumer pays, that is if the retail price of milk is 8 to 10 cents per quart, the farmer receives $2\frac{1}{2}$ to 3 cents as his share, a proof of the well known fact that he barely receives enough to pay the cost of producing, while the dealer secures the lion's share. A very general movement is now in progress to change this plan and to secure to the producers of milk better returns, and to the consumer a better and purer article.

As a rule the farmers whose business it is to produce milk are among the best in the country and if the milk were delivered in its original purity

there would be little cause for complaint. The difficulty has hitherto been to fix the responsibility: The farmer claiming that adulteration is done after it leaves his care, and the milkman that the *honest* farmer (?) is as hard to find as the *honest* milkman(?) Between the two, consumers pay a good price for an inferior article, and have almost settled down to believe the problem of supplying cities with prime milk is one impossible of solution.

Greater and more difficult things have been accomplished and in this a beginning has already been made that promises to become a complete success.

There are at present in New York several establishments that have taken a new departure by which the consumer is assured of pure milk and the farmer receives a fair share of the proceeds. It is the method of delivering the milk in glass jar or bottles, put up and sealed at the farm. There are various styles all of which have their claims to considerations, while any one is far superior to the old method of large open cans which leaves the contents at the mercy of the various hands through which they pass. One of the first and most successful companies to introduce the new style was the Lester Milk Company that has been in operation for over two years, and is supplying nearly 1500 quarts per day to the very best trade in the city. This company uses the patent Lester milk jar, a large straight glass case with an air-tight cover secured by a heavy clamp that keeps the milk as a solid body, preventing any shaking or churning during the shipping or delivery. It is claimed for this system that it preserves the milk much better than any other, and the milk has no opportunity to change from the time it leaves the creamery till it is delivered to the consumer. There are some objections to these cans, chiefly the great expense for both jars and cases for shipping and the extra charge for freight and delivery, as well as a royalty claimed by the owner of the patent. That this plan has been a success with these drawbacks proves that some modification will soon be the prevailing method.

Another notable example of the success that enterprise and well directed energy can accomplish, is the large and increasing business that is being done in supplying pure milk by E. Ratchford Starr of the celebrated Echo Farm of Leitchfield, Conn. He is using the Warren milk bottle, and his trade has so increased that even with his large supply, he is unable to fill his orders. His reputation of furnishing only the best has been a help to him in this new enterprise, but aside from that the plan of having your milk served in clean, tidy glass bottles, with a thick layer of cream at the top, has

much to do with his success.

Another bottle is that with the 'patent lightning stopper' that seems to be the most complete of anything yet offered at a price so 'reasonable' that any milkman, 'who wishes to secure the custom of those who appreciate quality, can adopt' it. A number, and the list is increasing 'daily, in New York and vicinity have already adopted' this, and are being repaid in such a large increase in their business that they can hardly supply it. In all these plans, the method is nearly the same. The milk, as soon as drawn, is cooled by the application of cold water, till the animal heat is all taken out, and then placed in the bottles or jars till ready for shipment, being kept from exposure to anything liable to taint it. The milk is sent by cars or boat in cases containing, generally, one dozen quart bottles to the depot of the dealer or distributor, and then served early in the morning to the customers, leaving the filled bottles and bringing back the empty ones. Each of the bottles are sealed at the dairy, so that any chance for tampering with the milk, either in transit or by the milkman, is entirely prevented, and the customer assured of receiving his milk in its purest and best condition.

The importance of a supply of pure milk can hardly be over stated. Upon it depends the life of infants, present, and to come, and it is certainly an object of very great moment, that only that which is good and wholesome should be furnished.

When the dairymen of the country become aware of the advantages of this method, it will be only a question of time when it shall be general, and pure milk will not be unknown on the table of residents of our cities.

Selection of Dairy Cows.

With the dairyman the cow is the machine that manufactures the staple of his dairy goods. Why should he not be as particular and cautious in selecting his herd of cows as is the cotton manufacturer in the machinery to work out his fabrics? How long do dairymen think that any class of manufacturers could continue in business if no greater attention were paid to the details than dairymen give to theirs?

One-third of all the cows kept by dairymen in the United States produce less milk than will pay their keep. These are simply a clog upon the business, and were better given away than kept. Does not this most important matter appeal to dairymen everywhere, that they should at once set about weeding out their poor cows, so that they may be able to reap a harvest with a good market, and protect themselves against loss with low prices?

One-half the cows kept, produce not over 3,000 pounds of milk per year, while selected cows will produce 6,000 pounds, on an average.

The value of a cow, measured for factory cheese production, is determined by the pounds of milk she yields, and may be looked at wholly from this standpoint; in which case nothing less than 6,000 pounds should be satisfactory. The cheese dairymen has then a simple standard of selection—merely the yield of milk—and the sale milk dairymen has the same standard. This is very easily determined with a pair of spring scales hung in the stable, with a book having a name or number for each cow; and by weighing and entering the milk of each cow in the book one day in a week, the average of these weighings will give the average yield per day, near enough for all practical purposes. Can't a dairyman afford to take this small trouble to learn the individual character of his cows, when profit or loss depends upon it? A cow that yields only 3,000 pounds, at five or six years old, should be got rid of as a pauper that lives on your charity and refuses to work. Only heifers with the first calf can be tolerated with so low a yield; and the prospect is not favorable even with the heifer. She should yield 4,000 pounds the first season to offer much encouragement to keep her. A heifer whose udder does not reach back and well up had better be discarded at once. If the udder is round and hangs down in front of her legs, like a four-quart pail, she is not worth an experiment. It becomes necessary for dairymen to study all the substantial points of a good cow, that they may avoid throwing away food upon an animal not designed to yield milk in paying quantity.—*National Live-Stock Journal, Chicago.*

WHEN TO GRIND WHEAT.—Never have wheat ground "for your own use" in extreme weather—either hot or cold. Choose, rather, moderate weather for the purpose.

Wheat ground on a very cold day will cause the flour to feel rough and sandy to the touch, and the bread made from it will become very dry and hard. This is caused by the action of cold air operating with the burrs in grinding, and causes the meal to bolt more freely than it should do. This evil cannot always be regulated in small country mills with only one bolt; and then again wheat ground in extremely hot weather will have the other extreme points which any good housewife will understand.

I have always looked upon it as a safe rule, and my experience has proved it to be correct, that if the wheat is good and put in proper order before grinding, and then properly ground and bolted, during the latter part of October, it will keep sweet and good for years, and if kept in a cool, dry place, there will be no danger of worms or sourness in the flour.—*Cor. Ind. Farmer, Ind.*

History of the Maryland Agricultural and Mechanical Association.

CHAPTER XVI.

A special meeting of the Society was held in Baltimore on the 13th of December, 1853 to take into consideration the proposition to establish an agricultural school and experimental farm under the auspices of the Society. Mr. Calvert, the President in the chair, stated fully the object of the meeting. After a free discussion and expression of views by Messrs. Key of St. Mary's, McHenry and Walsh of Howard, Earle of Queen Anne's, John Merryman and H. Carroll of Baltimore county, and C. Brooks of Baltimore city.

Mr. Key of St. Mary's county, offered the following resolution which was read and unanimously adopted:

Resolved, That the Committee appointed at the late October meeting to confer with the stockholders in the company holding the grounds now occupied by the Society, be and they are hereby invested with full powers on that subject, whether their action may result in the purchase of said ground, their improvement to a degree adequate for the present uses of the Society by the owners, or its immediate abandonment, and that whatever arrangements with the view to the permanent accommodation of the Society and the establishment of an Agricultural School and Model Farm may be deemed most wise by the committee, it is fully empowered and requested to provide for and consummate.

Mr. Earle then offered the following resolutions, which were also unanimously adopted.

Resolved, That the chair appoint a committee of two to wait upon the citizens of each ward in the city of Baltimore and solicit subscriptions in aid of the Maryland State Agricultural Society.

Resolved, That the chair be requested to call upon Vice Presidents of the Society, to procure subscription from the citizens of their respective counties and States, in promotion of the same object.

Mr. Walsh offered the following resolution, which was adopted:

Resolved, That nothing in the above resolutions shall be construed to debar any member of this Society from using his best efforts in advancement of the above purpose by collecting funds or otherwise.

On motion of the President, the officers of the Society present were called on to pledge their respective counties to the raising of a certain fund to carry out the objects contemplated by this meeting. This invitation was responded to by several of the Vice Presidents present, one of whom pledged his county to raise \$2000, others \$1000 each, and others in proportion to their ratio of taxation, in comparison with those which had thus fixed the amount to be raised by them.

At the regular quarterly meeting of the Board

of Managers of the Society, held on 1st of February, on motion of S. Sands, seconded by Mr. A. B. Davis, it was

Resolved, That a memorial be presented to the Legislature of Maryland, asking that the Maryland State Agricultural Society be placed on the same footing with the Maryland Institute, by an annual appropriation from the State Treasury.

A communication was received from Messrs. Key, of St. Mary's, and Dick and Gunton, of Montgomery, Committee on Essays, on the Renovation of worn out Lands, in which they awarded the premium to Com. Ap. Catsby Jones, of Va., with the recommendation that all the Essays presented be published, as they contain good instruction and advice to the agriculturists; but that of Com. Jones gives more of instruction, interest and warning, as to manures, &c. The report was accepted, and the premium awarded accordingly.

Mr. J. C. Walsh offered the following resolution, which was passed unanimously:

Resolved, That the Legislature be memorialized to pass a law appropriating a sufficient sum of money for the endowment of a Professorship of Chemistry in the Agricultural College contemplated to be established under the auspices of the Maryland State Agricultural Society.

The following gentlemen were appointed by the Chair, a committee to present the memorials in behalf of the Society to the Legislature, viz: A. B. Davis, of Montgomery Co.; Dr. Wharton, of Baltimore Co.; James T. Earle, of Queen Anne's Co.; Henry Carroll, of Baltimore Co.; N. B. Worthington, Anne Arundel Co.; George Gale, of Kent Co., and J. C. Walsh, of Harford County.

Mr. Calvert, President, after alluding in appropriate terms, to the handsome and efficient manner in which Governor Ligon, in his Inaugural Address, had urged upon the State the propriety of fostering the agricultural interest, offered the following resolution:

Resolved, That as agriculturists, we have seen with great pleasure the recommendations contained in the Governor's Inaugural in favor of the great cause of Agriculture, and in returning him our sincere thanks for the interest he has manifested, we trust the Legislature will carry out his recommendations.

Messrs. J. H. McHenry, J. Merryman, and Hugh Gelston, were appointed a committee to draw up some plan upon which stock subscriptions to the proposed Agricultural College shall be invited, and to report the same.

Messrs. R. McHenry, W. W. Glenn and John Brune were appointed a committee to prepare an address to the citizens of Maryland, setting forth the object and advantages of the proposed Agricultural School and soliciting contributions and aid.

Mr. Carroll Walsh submitted a report from the committee on the subject of guano, accompanied by correspondence with Secretary Marcy, in

which the Government assured the Society of its willingness to aid the object of the Society in securing some arrangement with Peru, by which the price of the guano would be cheapened to United States purchasers of that fertilizer. The committee also suggested resolutions looking to the action of Congress to authorize the purchase by the United States of a part or the whole of the portion of Peruvian Territory containing the guano deposits.

Maryland the Home for Immigrants—Its Advantages and Resources.

ST. MARY'S COUNTY.

As we have before said, when we find what we wish to write, has been written in a better way than we are able to do, we use what we find and therefore we give from the "Maryland Directory"—by the way, a book that should have very extensive circulation because of its intrinsic worth and valuable information—as follows:

"St. Mary's county, having an area of 429 square miles, occupies the south-eastern extremity of the western shore of the Chesapeake Bay, and forms a peninsula bounded south-westerly by the Potomac River, easterly and north-easterly by the Bay and Patuxent River, and on the north-west by Charles County, being almost insulated by the finest and deepest waters. This is the oldest county in the State, and claims the most prominent notice in the history of Maryland. The scenery along the river banks is particularly picturesque and beautiful, while the noble streams that gird them abound plentifully in fish, oysters, terrapins, and wild fowl. Of the Potomac, says Father White, (one of the first settlers of Maryland,) "a larger and more beautiful stream I never have seen. The Thames compared with it is but a rivulet. Bounded on the sides by no marshes, it runs between solid and rising banks," scarce less could be said in compliment to the Patuxent River, though not so large; its meandering course and lucid water reflecting as a mirror the verdant banks and forests, presents a most lovely picture—the one furnishes a fair type of grandeur in the expanse of its water and deep bass of its heaving billows, the latter catching color from earth and sky on its glassy bosom, ever breathing music from its crystal shores, conveys the impression of a most refined and pleasing beauty.

Throughout the whole length of the county these two noble streams branch out their crystal arms as if vying in their service to so fair a land. Averaging in length about 39 miles and in width about 11 miles of an undulating surface in the north-western part, low and level in the south-eastern portion, possessing a soil susceptible of the highest improvement, well wooded and watered throughout, this county at once presents the fairest handiwork of nature, only awaiting the enterprise and labor of a thrifty people to develop the latent wealth of her fields."

The seat of Government of the Province of Maryland was for many years, St. Mary's city, in this county, until Annapolis was made the Capital of the Province in 1692. The first Legislative Assembly was held in St. Mary's city in 1635, 26th February. It is a small village now; on its ancient site is Mrs. Thomas' school for young ladies, called "St. Mary's Seminary;" "Charlotte Hall" is an old academy endowed by the State; and situated near, in the words of its charter, the Fountain of Healing Waters, called "Cool Springs." This famous academy can boast of a great number of distinguished alumni. There is a full supply of schools, churches, mills &c. Navigation, and a rail road soon to be built, afford ample facilities to market and for travel. The waters abound with fish and all the luxuries of the waters of Southern Maryland. The land is easy of cultivation, and admirably adapted to fruit and vegetables. The climate is very excellent,—owing to its proximity to the ocean, the winters are somewhat moderated by the gulf stream, while cool breezes relieve the heat of summer."

It will thus be seen that every inducement is held out to tempt immigration. There is no section of this country where capital can be more profitably employed than when laid out in St. Mary's county. There is plenty of land for sale, as the farms are generally very large and the owners are desirous to cut them up into small farms. The average price is only about \$10 per acre. The cash value ranges from \$3 to \$50, being about \$20 average only, amongst which are rich farms with fine houses.

WHEN a man finds an extra large stalk of cotton, wheat or oats, or a first cotton bloom or ball, he seizes it, rushes to the editor and with princely liberality bestows it upon him. But when his first watermelon, his first basket of peaches or his first armful of roasting ears mature, he quietly appropriates them to his own use and then walks around and tells the editor about it the next day, and wishes he could just have seen them, "they were so nice."—*Cedartown Advertiser.*

THE MARYLAND FARMER.—The November number of this valuable Agricultural Magazine has been received, and we find it replete with able articles of interest to the farmer. Every branch of agriculture, horticulture, stock-raising, &c., receives particular attention. It is published by Ezra Whitman, 141 West Pratt street, to whom all orders should be addressed.—*Montgomery County Sentinel.*

THE MARYLAND FARMER,

A STANDARD MAGAZINE.

DEVOTED TO

Agriculture, Horticulture & Rural Economy.
EZRA WHITMAN,

Editor.

COL. W. W. W. BOWIE, Associate Editor.

141 West Pratt Street

BALTIMORE.

BALTIMORE, DECEMBER 1, 1879.

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These articles we warrant to be first-class.

TO ADVERTISERS

The large circulation of the Maryland Farmer makes it one of the best mediums for advertisers of all classes. Its circulation will be largely increased by our reduction in the Subscription Price, and hence add to its advantages as a medium for advertisers. The terms of advertising will remain as heretofore.

The Maryland Farmer will be read this year by more Farmers, Planters, Merchants, Mechanics and others interested in Agriculture, than any other magazine which circulates in the Middle or Southern States, and therefore is the best medium for advertisers who desire to extend their sales in this territory.

☞ We call attention to our Reduction in Price of Subscription.

☞ Read in the advertisements for this month our 13 Reasons Why every Farmer should Subscribe for, and every Business Man Advertise in the Maryland Farmer.

DR. KENDALL'S valuable little book on the horse and his diseases, can be had at our office or sent by mail on payment of 25 cents.

GRAPE GROWING, ON THE SINGLE POLE SYSTEM, OR HOW THEY ARE CULTIVATED ON THE UPPER RHINE VALLEY, by A. H. Hofer. A treatise every grape grower should have. Price 50 cents, at our office or sent by mail postage paid.

☞ Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

YOUNG MEN!

It is an easy way to make money by getting subscribers for THE MARYLAND FARMER. Send 10 cents for Specimen Copies, and ascertain what Liberal Commissions we will allow.

TO OUR SUBSCRIBERS!

The reading matter in the MARYLAND FARMER will never be lessened by advertisements. We feel called upon to make this statement, as the large increasing circulation of our paper *naturally* increases the amount of advertisements, therefore we wish to say most positively to our subscribers, that the reading matter in the FARMER will always contain not less than 32 full pages monthly, and often 36 to 38; and should our advertisements reach 100 pages, it will not lessen the reading matter, but likely to increase it. We feel indebted to our correspondents for their largely increased interest in the FARMER, and we are sincerely thankful for the promptness of our subscribers in renewing their subscriptions since the commencement of the year 1879.

Close of the Year.

In closing our December number, we finish the 16th volume of the MARYLAND FARMER, and cannot do so without a friendly greeting to our subscribers and a word of congratulation upon the wonderful advancement in the prosperity of the whole country during the year which is drawing to its end—and especially on the improved condition of agriculture since the commencement of the present year. 1879, will ever be remembered as the great year of progress and profit of all the great industrial interests of the United States.

The 13th day of September, 1879, was a memorable day—for on that day we exported to Europe from New York City alone, 200,000 bushels of grains, 20,000 barrels of flour, 2,500 bales of cotton and thousands of tons of meats, cheese, butter and other provisions.

In '78-9 we exported \$1,500,000 worth of apples from this country, besides the immense exports of dried and canned fruits of all sorts.

We are particularly happy in knowing how rapidly the South is recuperating her energies, and how greatly the exertion of those energies are adding daily to her resources for the welfare of her people. In wealth and the healthful activity of her business, the South is truly becoming a *solid* South. It will raise this year 5,000,000 bales of cotton, 200,000 hogsheads of sugar, and very nearly 600,000,000 pounds of tobacco. This will be a half million more bales of cotton, a much greater amount of sugar, and 12,000,000 more pounds of tobacco than she ever raised before.

We quote from the report of Commissioner Polk, of North Carolina, the following important statement, to show what that State is doing towards manufacturing its own raw material and creating, not only a home-market, but contributing to home-independence:

"We have fifty-three cotton mills in operation in the State, and the consumption for past year is estimated at 38,484 bales, or 17,297,800 pounds. According to the figures of the National Cotton Exchange, this was an increase of 16,644 bales over the previous year. Three large mills are now being erected, with the prospect that others will be added within the next twelve months, which will continue to increase our consumption. It is a gratifying fact, while all our spindles run on full time, they are unable to keep up with the demand. Every pound of cotton produced in North Carolina should be spun within its borders, thereby affording employment to thousands of our population, and adding millions to our aggregate wealth annually."

Not only in the South, but all over the country such an impetus has been given to business by the restoration of public confidence, the large balance of trade in favor of this country, the unusual failure of crops in Europe and the unprecedented yield of every sort of agricultural production in our favored land, that labor has found employment, capital has been let out of coffers for investment in various enterprises and the land smiles with plenty and peace while commerce extends her snowy wings over the waters.

Sixteen years ago, when a dark cloud rested on our soil, when every agricultural paper that had ever been published in our State, had ceased its existence, and their names extinct, without a single laborer in the field—when the farmers had *no organ*, and when it was deemed hazardous to start an agricultural journal, the proprietor of this journal, in behalf of the farming community, issued the first number of the MARYLAND FARMER, and has through storm and sunshine continuously sent it forth, battling for the progress of agriculture. When the times became oppressive and farming was over-burdened, he reduced the price of the FARMER one-third, to accommodate itself to the exigencies of the times. Now, when agricultural pursuits have revived and become prosperous, he feels that he has some claim upon the farmers of Maryland and the South, for a share of patronage of agricultural journals. With this congratulation upon the altered condition of his subscribers, and this truthful statement of his claims to their consideration, he closes his farewell for the year with the hope that the coming festive season of Christmas is but a fore-runner of many like prosperous ones.

THE HORSE-TOOTH CORN, which we were instrumental in getting the Messrs. Whitman to put on the market, at the suggestion of Dr. Sharp, of Baltimore, who first got it from the original grower in Virginia, has proved superior. Mr. Phillips, of Baltimore co., Md., sent us some average ears, either of which will shell a pound of grain. This would make only 56 ears to the bushel of grain, or 280 ears to the barrel. This seems almost impossible, and yet it is the naked truth to be vouched for by dozens of men of veracity who have tested it. The cob is small, grains large and in appearance resembles somewhat Ohio Dent. The stalks are large and vigorous with from one to two ears on a stalk. It is rather late in maturing. The ears that we have seen have from 16 to 20 rows each, and from 44 to 56 grains in a row, or from 850 to 1,000 grains on a cob. We shall have more to say, perhaps, of this corn when we hear from others who have raised it this year at our suggestion. So far we have not had a single complaint against it by any grower.

THE MARYLAND JOCKEY CLUB, held its fall meeting on its Pimlico Course, near Baltimore, four days, commencing on the 21st of October. There were 4 or 5 races each day. The weather was cool and propitious. The attendance was large each day, embracing the fashionable and the Fair of Maryland and other States. The races were exceptionally fine. The Bowie stakes—four miles and repeat—was one of the best contested, as was the Breckenridge stakes, ever run. This 4 mile race was the fastest three heats of four miles ever run in this or any other land. The time was wonderful! These meetings of the Maryland Club become more interesting and more successful every season. Pimlico is now the great resort of the distinguished gentlemen of the country. The fairness, and perfect order maintained, reflect honor upon the high-toned officers and members of this renowned Jockey Club.

THE JUICE OF THE TOMATO PLANT AS AN INSECTICIDE.—A German gardener has found by experience that black or green flies, caterpillars, etc., are at once destroyed by syringing the plants affected by them with water in which the stems of the tomato plants have been well boiled. The liquor is applied when cold, and not only kills the insects, but leaves an odor which prevents others from coming.

The Baldwin Augusta Fair, at Staunton, Va., was very largely attended. The exhibition was in all respects creditable to the wealthy and productive county of Augusta, and the racing prizes were contested for by some fine horses.

HOMING PIGEONS.—There is at present a great interest manifested by fanciers of pigeons in this neighborhood, in these beautiful and intelligent birds. Of late, Mr. Harry Whitman's loft has been very fortunate. He received at the National Fair in Washington city, a first premium for his pair of blue chequered Antwerps, and Mr. Wm. L. Frenner, for a pair of imported black Trumpeters, and one pair of black Turbits, both pairs obtained of Mr. W. In the late pigeon race, the fortunate winner of the beautiful gold medal was "Weston," entered by Mr. J. J. W. Muse, from the loft of Mr. H. Whitman. The beauty, markings and performances of these birds are wonderful. We never tire of looking upon these lovely pets.

HOPEFUL SIGN FOR OUR COUNTRY.—It is a fact that the Baltimore pavers of streets use sand from England and France cheaper than they can get Maryland sand. Our exports so largely exceed our imports that vessels from Europe which used to bring merchandise and take back ballast, now come laden with sand, &c. as ballast, and return with our products. On reaching this port they give the sand to any one who will haul it away, so our pavers get nearly all the sand they want gratis, from European ships arriving at our port. This fact is very significant as to the growing exportation against importation of this country, and as the balance of trade between countries is a good indication of the state of prosperity we must congratulate ourselves upon the present and prospective state of commercial relations.

THANKS.—To Prof. C. V. Riley, Entomologist of the U. S. Agricultural Department, for an advance copy of his entomological report to that department for 1878, also for copies of entomological papers submitted to the American Association for the advancement of science, at its St. Louis meeting, August, 1878. We shall in future issues avail ourselves of the opportunity to make extracts from these valuable contributions to science.

WHEAT, FLOUR, &C.—In the ninth annual report of the Department of Agriculture, we are officially informed that last year America produced 425,000,000 bushels of wheat, which is computed to be the largest crop ever produced in our land. Now, has the reader any conception of what such a statement means? Why, it means enough wheat to make 85,000,000 barrels of flour, or enough to supply every man, woman and child in the United States with a loaf of bread each and every day for nearly a year.—*Cor. in Cinn. Millright.*

HORTICULTURAL.

Forest Culture.

The following extract is from a lecture by Geo May Powell, delivered at the Pennsylvania State Fair, held at Fairmount Park, Philadelphia, the present fall.

"In respect to tree planting, we take the ground, most emphatically, that as the time and money needed to transplant even a small tree will put one hundred tree seeds in the ground, the slogan of the forest-creating campaign opening before the nation is, "Plant tree seed where the trees springing from them are to remain." Transplanting, however, has its place, and is not to be ignored. Recent yellow fever experiences prove the South to have millions of dollars of trade interests per week involved in the subject of public health. A family in good health, north or south, east or west, may earn \$1,000 a year net. Sickness in the same family may cause it to suffer a loss—first, of the ability to earn that \$1,000; second of \$1,000 in expenses incurred by sickness. Such a family has thus \$2,000 a year involved in the health question. By parity of reasoning, the nation has untold millions every year wrapped up in the health budget. A forest leaf has tens of thousands of values made on purpose to pump in the poisonous carbonic acid gas and other "enemies" in the air, and pump out life-giving oxygen. The trees are also the chief conservators of these thermal and hygroscopic conditions which determine not only the health of men but of domestic animals, also the health of fruit and grain-bearing plants. In any one of these relations, forests and climate is a cash question of startling proportions. The human life and health involved is of course not susceptible of financial gauge. A man cannot tell how much he would give to have a dead darling given back to him again.

All this aside from loss of life or health, the value of which cannot be computed. Much of this would be modified or remedied by planting rows, or double, treble, or quadruple rows of trees around farms and along roads. Thus a farmer might have a thousand trees where they would harm nothing. If they were nut and sugar-bearing trees they would soon annually net him more than a thousand, and also add more than their cost to the cash value of the farm simply as a question of beautifying it.

He said we need laws providing forest engineers and literature, fire-proof buildings and protection from forest fires; reduction of taxes for these planting trees, so as to squarely meet proper prescribed

rules, as certified by a competent forest engineer. There should be no exemption from taxes for foolish or for bogus tree planting. The Forest Council urges people to pay more attention to planting tree seeds where the trees springing from them are permanently to stand, than to transplanting. By this means, expenditure of a given amount of time and money will plant a hundred times as many trees as by transplanting. Steep hillsides especially need this treatment to preserve streams, and are of little value for other use.

Thus spread the royal forest robes over the mountains and the valleys and prairies of our fatherland, and the following interests will also be subserved. The damage to rivers and harbors, and the encroachments of the ocean on the land, as well as the rise and progress of hurricanes and fires, will measurably be abated. With all these ills that earth and man are heir to, the forests are the most potent, and in some of them the only power competent to cope. "The leaves of the tree are for the healing of the nations" in a material, as in a far higher sense the Tree of Life is for moral healing."

Curious Trees.

The India Rubber Tree.—The India rubber tree is a native of India and South America.

The Guava Tree.—The guava tree, from the fruit of which the delicious guava jelly is made, is a native of the Indies.

Tallow Tree.—In Malabar, a tree called the tallow tree grows; from the seeds of it, when boiled, is procured a firm tallow which makes excellent candles.

Life Tree.—There is a tree in Jamaica called the "life tree," whose leaves grow even when severed from the plant. It is impossible to kill it save by fire.

Butter Tree.—This singular tree was discovered by Park in the central part of Africa; from its kernel is produced a nice butter which will keep a year.

The Banyan Tree.—The Banyan tree is a native of India, and is an object of great veneration among the Hindoos and Brahmins, who look upon it as an emblem of the Deity.

The Manna Tree.—The manna tree grows in Sicily and Calabria. In August the tree is tapped, and the sap flows out, after which it hardens by evaporation, and the manna is left, of a sweet but nauseating taste.

Fig Tree.—There is no tree more frequently spoken of in the Bible than the fig tree, and a common cry, even now, in the streets of Cairo, in

Egypt, is: 'In the name of the prophet—Figs.' a cry almost universally used by the venders of fruits.

The Travelers' Tree.—A tree called the travelers' tree, of Madagascar, yields a copious supply of fresh water from its leaves, very grateful to the traveler. It grows in the most arid countries, and is another proof of the tender care of our Heavenly Father in supplying all his creatures' wants.

The Sorrowful Tree.—"The sorrowful tree" is found in the Island of Goa, near Bombay. It is so called because it only flourishes in the night. At sunset no flowers are to be seen, but soon after it is covered with them, which close up or fall off as the sun rises. It has a fragrant odor, and blossoms at night the year round.

Wonderful Tree. The Island of Fierro, one of the largest of the Canaries, is so dry that not even a rivulet can be found, but by a wonderful provision of Providence, there is a species of tree, the leaves of which are narrow and long, and continue green throughout the entire year; there is also a constant cloud surrounding the tree, which is condensed and falling in drops, keeps the cisterns placed under them constantly full.

WHEAT, oats, barley, and rice are sometimes called silica plants, because in their composition 50 or more per cent. of silica is found. Peas, beans, clover, and lucern are called lime plants, as they contain 50 per cent. of lime; and for the same reason, turnips, beets, and potatoes are called potash plants, as they contain from 70 to 90 per cent. of alkaline salts in their ash.

Alexander M. Fulford, of Hardford county, received three premiums for his fine Berkshire swine at the Missouri State Fair, held at St. Louis, and an equal number of premiums at the Illinois State Fair, held at Springfield.

WHAT A SINGLE BEAN CAN PRODUCE.—The history of a bean, accidentally planted in a garden at Southbridge, Mass., is traced by a newspaper correspondent, who figured out its produce for three years. The bean was planted in a rich, loamy soil, and when gathered in the autumn its yield, as counted, was 1515 perfectly developed beans from a single stalk. Now, if a single bean produces 1515 beans, and each bean produces 1515 more, the sum total of the second year's product would be 2,295,225, equal to 1195 pounds, 597 quarts, or 2390 army rations, equal to 18½ bushels. This would be the product of the second year. Now, if we plant this product and the yield is the same, we have a product of 5,268,058,800,625 beans equal to 1,371,800 tons, or 42,871,572 bus., or 548,756,068 soldiers' rations. This third planting would give the steamship Great Eastern 92 full freight.

Live Stock Register.

Fat and Lean Pork.

Some of our readers may think this heading a contradiction, but it is quite possible to grow pork with that happy medium of fat and lean so much relished. The greatest obstacle to this is the general method adopted in feeding pigs. They are fed on food merely adapted to lay on fat, and with a scant proportion of albuminoids to grow the muscles or lean meat. Pigs have thus been grown and fattened for so long a time, that they seem to take on only lean meat enough to hold the body together. Except when on grass, the pig is plied almost wholly with corn, which is excessively rich in starch and fat, and produces mostly fat. Some breeds have become so constituted that they will get fat on grass. The pig, in its natural state, does not get excessively fat, but is nearly as lean as a beef animal. If young pigs are fed on nitrogenous food, such as skimmed milk and grass, they will be found to grow rapidly—extend the frame and muscular system, having only fat enough to round out the body into a comely shape. Pigs should always be full-fed; but this does not necessarily mean cramming with corn, which merely piles on the fat until the young pigs become diseased. It is the mode of feeding for so many hundred generations that has transformed our swine into lumps of fat, with a few strings of muscle to tie the ball together. To reverse this work of improper feeding will take some time, but it can and will be done. Witness the great change from those overgrown fat hogs which were bragged of years ago, but are now seldom seen, because the market does not call for them. We do not undervalue corn, which is the best fattening food the American farmer possesses; but we should be glad to have them avoid its too frequent use in feeding young pigs, and substitute a more nitrogenous food, such as oats, peas, wheat, bran or middlings, a little oil-meal, decorticated cotton-seed meal, rye, bran, or barley,—any of these. Corn may be fed sparingly with clover or skim-milk. Our Canadian neighbors can raise fat and lean pork with grass, peas, barley, and corn. We must have a grass diet for pigs generally, and, with this, grain may be fed. Farmers sometimes forget that the pig is a grass-eating animal as much as the horse, and needs fibrous food to keep him healthy. Nicely cured clover is relished by pigs in winter, especially when brought up on grass. If you want fat and lean pork, a strictly corn diet must be reserved for the last stage of feeding, simply to

harden the pork; yet a little corn may be fed all through the life of the pig, only giving these other nitrogenous foods with it. Pork, grown in this way, is relished by most people, and will always find a ready local market.—*Nat. Live-Stock Journal*.

Treatment of a Horse with a Broken Leg.

A correspondent of the *Cultivator* recommends plaster of paris as a bandage for a broken limb of a large animal.

"The difficulty of managing an animal in the ordinary way with a broken leg, is that it keeps straining the leg, thus preventing the broken parts from knitting together. If the leg is swollen, cold water is one of the best applications for removing the swelling, and this should have immediate attention. After the bone is carefully set, encase the fractured parts (also a space above and below them) with heavy leather, something like a boot leg. Tin or wood might answer the same purpose. It should be large enough to leave two inches space all around the leg, which space should be filled with wet plaster of Paris. The latter will harden very quickly and hold the bone as securely in position as though it were in a block of wood, still allowing a free circulation of blood within the leg."

Syracuse, N. Y., Oct. 26th, 1879.

Messrs. Editors Maryland Farmer:—Last week we were favored with a call from J. D. Guthrie, Esq., of Shelbyville, Kentucky and he purchased from our herd 15 fine Holsteins to take back with him home. We believe this is his home. We believe this is the first herd in that State and we are indeed pleased to see so deserving a breed and herd taken into prominent grazing State. The herd consists of one two year heifer, 6 yearling heifers, 7 heifer calves and one bull calf, all imported. They are of the choicest possible breeding and from dams that give records as high as 76 lbs. of milk in a day.

Respectfully, SMITH & POWELL.

[Mr. Guthrie is a distinguished breeder of short-horns and his State may well be proud that he has introduced this remarkable breed of dairy cattle, which only of late has gained great popularity in this country. The earlier importations were suffered to be eclipsed by other breeds, but their immense milk-yielding qualities and hardiness have brought them into notice, and the present importers must reap a just reward for their enterprise in

diffusing such valuable stock in this country, where after all, quantity of milk and quantity of beef, with ease of keep and hardness of constitution are the qualities that the mass of farmers look to for direct profit and future improvement of their common stock of cattle.—EDS. MD. FAR.]

Journalistic.

"The Baltimore Evening Bulletin," has been lately enlarged and improved in appearance, and has added new features which will likely increase greatly its circulation and add to its usefulness. It is ably edited and judiciously managed. It has few peers as an evening paper, and ranks with the best dailies in the country.

"The Baltimore Evening News" is fresher, more vigorous and more newsy than ever.

"Rural New Yorker" seems to meet with the success that its great energy and ability deserves.

"The Agricultural World" is a new monthly published at Grand Rapids, Mich., by F. M. Carroll & Co., with great credit to the publishers and editors. We wish it every success.

The "Land and Home," a well printed, ably edited new weekly, published in new New York, is well worthy of the public regard. It is as full of good instruction and facts, as an egg is of meat. The corps of editors and correspondents are men of ability and marked distinction. It may be said to be the successor of that able, long and always welcomed by us, "Scientific Farmer," of Boston, edited by our friend, Dr. Sturtevant, who is one of its editors in chief. It will be elegantly illustrated, and contain weekly a mass of valuable and highly interesting reading matter. Its form is large folio, and presents a plain English look on its face, without cover, beginning its editorials bare-faced. Only \$2 per year in advance.

MARYLAND BERKSHIRES.—Our enterprising citizen, A. M. Fulford, Esq., of Belair, Md., has been very successful this year wherever he exhibited his splendid Berkshire hogs—in the far West and on the Atlantic border, at the different agricultural fairs. His premiums are many, and his stock now stands as the rival of any of the best in this or any other country. It is worthy of remark that Mr. Fulford spares no expense to obtain the best animals, money can buy, of this breed of hogs in England and America. His success has been equal to his expectations, and his reputation has become national.

Chew Jackson's Best Sweet Navy Tobacco,

New Publications Received.

"St. Maur; an Earl's Wooing," by John Carroll, of "The Caves," Baltimore Co., Maryland, is a very peculiar work of fiction, with the scene in England, though some American characters, drawn without exaggeration, figure in it. It is decidedly sensational, with a well-constructed story, which might be regarded as too highly wrought, were it not that every mystery is set even at the close. Most of the scenes are worked out with great effect; and the destruction of a great country mansion, by fire, in England, in which the heroine and hero are saved by the devoted self-sacrifice of Travellyn, the Earl's tried and true friend, is most powerfully written, and the death scene of the latter, is a wonderful bit of tender pathos. There is an exquisite little poem in it, the story has numerous good points, and is nicely told. Marylanders may well congratulate themselves that so accomplished a novelist has appeared in their midst who is destined to rise superior to her J. P. Kennedy of former days' fame. We hail with pleasure and pride this first effort of a Maryland gentleman in this field of literature which has been so long left uncultivated in this section of the South.

"St. Maur" is for sale by all booksellers, or will be sent to any one to any place, on their remitting 75 cents in a letter to the publishers, T. B. Peterson and Bros., Philadelphia, Pa.

Bulletin of the American Berkshire Association for September, 1879, terms \$1 per year. This is a paper worthy the patronage of every Berkshire breeder in the country. It indicates when the purest blood is to be obtained, and gives much valuable information to those who take interest in this stock.

How to Select Cows; or The Guenon System Simplified, by Willis P. Hazard. Price, 50 cents. No better care could have been found to explain and practically illustrate this remarkable system of Guenon than Mr. Hazard, who is well versed in cow-ology and a lucid writer. We have reason to believe in the theory of Guenon, which having been treated by so many, has become to be an almost infallible test by which the milking properties of a cow are ascertained. This is a great point gained by the dairyman, and any one who has occasion to buy a cow should study this book, because a knowledge of its precepts will put many dollars in the pocket of a buyer of only one cow.

The Illustrated Book of the Dog, by Vero Shaw. In quarto size, 30 parts, at 40 cents each. We have received from the publishers, Cassell, Petter and Galpin, 596 Broadway, New York, Part III, of this highly finished work. This book will contain thirty fac-simile colored plates drawn from life,

this work expressly, of typical specimens of

various breeds of dogs and numerous wood engravings. It will embrace a full description of every known breed of dogs, and in addition, is explicit upon all matters relating to rearing, breaking, working, feeding, exercises, points, diseases, &c., and various matters connected with the dog, so as to render the work an invaluable companion and guide to all who aim at success in breeding and rearing this faithful animal.

The American Mail and Export Journal is indispensable to all exporters and importers, as it gives valuable information about all articles of commerce—places where certain goods are saleable, and general reports from various ports over the world, having a wide circulation beyond this country.

Transactions of the Massachusetts Horticultural Society for 1879. Part I; is one of the best ever issued by this great association. We shall take pleasure to copy from it in future. It is full of valuable information. Why can not the Maryland Horticultural Society issue semi-annually such a publication, filled with the essays read and the discussions of questions appertaining to horticulture? Such publications would be of more importance than the simple exhibition of a few fruits and flowers that at intervals are made, and make only evanescent impressions upon the gaping crowd that may by chance see them.

GOOD TIMES.—The signs of the times are full of encouragement to the agriculturists of this broad republic. Not only are the crops of unusual abundance, but through the general prosperity the home consumption of food products has materially enlarged, while, by reason of short crops abroad, a foreign demand of unequaled magnitude has appeared to absorb our surplus and to steady the price of produce. Admitting that the prices of agricultural products which prevailed in this country some two months since, barely covered the cost of production, the subsequent rise will carry a profit of considerable magnitude. With the prospective wheat crop of this year, the rise of one cent per bushel adds nearly \$4,500,000 to the wealth of the holder, and when we figure the rise at upwards of twenty cents per bushel, the aggregate gain is about \$90,000,000. Again, an advance of ten cents a bushel on corn, which has already occurred this season, adds to the wealth of the nation more than \$140,000,000. When to these grand totals we add the rise in values of other grains, also butter and cheese, hops, wool tobacco and pork products, we can form some estimate of the improved outlook for the agricultural interests of the United States.—*Exchange.*

For the Maryland Farmer:

NEW YORK LETTER.

NATIONAL DAIRY FAIR—NATIONAL AGRICULTURAL SOCIETY.

The boom business is the rage now, and we have had several lately that have been very short lived. Just now it is considered the right thing to speak in very laudatory terms of the agricultural products as one, if not the principal cause of the great business revival. This is doubtless true, but when we consider that commerce is almost entirely dependent on the operations of the farmer, it seems rather strange that it has been just found out that the success of the farmer means the prosperity of the whole country. The two important movements on foot in this city, just now, are the International Dairy Fair and the National Agricultural Society. The Dairy Fair promises to be a much greater success this year than the last. The importance of the dairy interest is attracting general attention, both because it is a part of our daily "bread and butter," and also from the fact that new departures are being taken in all the departments pertaining to the dairy. The ancient regime is passing away and the public are being educated to use a better class of dairy products.

The Fair this year will be held in the American Institute building, and the whole space extending from 3rd to 2nd Avenue will be occupied. The entries, even now, are very numerous, and a very particular feature of the fair, will be the display of stock. This department will be under the management of Mr. L. S. Hardin who is peculiarly adapted for the position, and the indications now are that representations from many of the best herds of the country will be on exhibition. It is proposed to have the operations of butter and cheese making during the fair, so that the visitors may have the opportunity of seeing how those articles of daily use are made.

Another interesting feature will be the various methods of cream raising, which will be in operation to show how it is done, and no doubt their different advocates will be more than anxious to explain the action of gravitation, cold currents, submerged milk; and the various other plans that are attracting so much attention. All the departments will be thoroughly organized, and with the experience of last year, many mistakes will be avoided.

The question of a supply of pure milk for the city has received a new impetus, and it looks now as if this much discussed problem may be solved. Several meetings have been held, and an organiza-

tion of the farmers of Westchester county been effected, to procure pure milk, and the delivery of the same in sealed jars or bottles direct to the consumers will be next in order.

The National Agricultural Society is assuming definite shape, and the committee on organization are receiving letters from all sections, heartily endorsing the movement. It seems as if the present was just the time to secure the co-operation of the commercial classes in any plan for the advancement of the agricultural interest. Our city is wide awake in all that pertains to her commercial supremacy, and the support given to the International Dairy Fair and this new candidate for favor in this department, shows that her merchants fully appreciate the importance of agriculture in the world's commerce. D. W. WILSON.

National Agricultural Society.

The Executive Committee, of the Committee on Organization of a National Agricultural Society, appointed at a late convention held in New York city, by agriculturists from various sections of the Union, have issued the following call, to which is appended the names of a hundred gentlemen, distinguished for the deep interest they feel in agriculture, and who represent every State and Territory of our wide spread nation. The coming meeting on the 10th of this month (December), will, we hope, eventuate in the establishment upon a great and solid basis of a Society which will in its usefulness and perpetuity rival the Agricultural Society of Great Britain:

New York, November 19th, 1879.

"This Committee, appointed to organize a National Agricultural Society, requests the co-operation of every farmer and all interested in Agriculture throughout the country. A convention will meet at the Metropolitan Hotel, in the city of New York, at 10 o'clock A. M., Wednesday, December 10th, and the attendance of all who can make it convenient to come is requested. Lectures will be delivered on practical topics relating to agriculture, by some of the best authorities in the country. A Constitution and By-laws will be adopted, and officers elected for the management of the Society.

"A preliminary conference, held in this city on October 22d, and composed of representative men from different sections, decided the practicability of an organization such as is proposed. The letters of approval received since from well-known men in different parts of the country, and the general favor with which the idea is received, confirm this judgment.

"The Committee have met with the greatest encouragement in their work, and have reason to believe that the meeting in December will prove the most important gathering ever assembled in connection with the agricultural industry of the United States.

"It is designed to organize an Association that shall represent every part of the county, and combine within its membership every interest directly or indirectly related to agriculture. Its aim is the protection and advancement of agriculture in the United States, by practical methods; such as periodical exhibitions of the products of the soil, principal cities of the country, the encouragement of immigration, the discussion of questions relating to agriculture and the commerce in its products, and the collection and dissemination of the best agricultural thought and experience.

"The useful results that have been produced by the different state and county agricultural societies in America, and the beneficial effects of the Royal Agricultural Society of England upon the agriculture of Great Britain, show conclusively the advantages of organization. It is believed that the time has come when, for our own protection, greater attention must be given to the agricultural interests of this country. The demands of the future upon them will be far greater than in the past, and new methods and new systems must be devised and employed to meet them. The yield of the land now under cultivation must be increased, and new fields prepared for new wants. The drudgery of the farm should be lessened, and the farmer relieved from many of his present burdens. Through the promulgation of new ideas and the employment of greater labor-saving machinery, his toil may be lightened and his comforts increased. The advantages offered by this country to emigrants must be clearly and forcibly set forth, that our boundless acres may be occupied, our producing capacities increased, and the happiness and comfort of all advanced.

"Whilst giving prominence to the fact that our agriculture is the basis of all wealth, we recognize this truth, that the interests of manufacturing, commerce, trade and transportation, are identical with that of agriculture; and that the prosperity of one should lead to the best prosperity of all.

"Since all classes are interested in the promotion of agriculture, the support and encouragement of the public at large are requested.

"Those who favor the undertaking are requested to send their names and addresses to the chairman of this Committee, J. H. Reall, 323 Pearl Street, New York.

Tri-County Agricultural Society.

COMPOSED OF ANNE ARUNDEL, HOWARD & PRINCE GEORGE'S COUNTIES, MD.

Very nearly forty years ago, Prince George's county became the pioneer in establishing successfully a county agricultural fair and cattle show. It continued for several years with unabated success. Several other counties followed the lead of Prince George's, until now we have a society with an annual fair in most of the counties of the State, except in the very place, one at least, should be found—in the Southern peninsula of the State. Ever desirous to aid the progress of agriculture in every possible manner, we have often pondered over this question and wondered why it was that so many efforts by spirited and enterprising citizens in these different lower counties of Maryland have failed to establish such associations in their respective counties.

Great efforts have been made in Prince George's, Anne Arundel and Howard to form societies for their respective counties. They have not succeeded, owing perhaps to the depressed condition of the times. But now that, happily, the condition of things have changed and times have become prosperous with a still brighter outlook for the future, we can see no reason why the joint effort of the three counties above named should not be a perfect success, as they might rely with great confidence upon a cordial support and substantial aid from Baltimore city and other contiguous towns.

This section has all the material of the best character for establishing upon a firm basis such an institution, and of the advantages of such an association it is superfluous to speak to intelligent minds. The old society of Prince George's during its brief existence of five or six years, added tens of thousands of dollars to the aggregate wealth of the county by the improvement of its stock, and improved system of culture, the introduction of fruits and other causes springing from the influences of the agricultural society, independent of the greatly increased social advantages and pleasure thereby secured.

Taking these views into earnest consideration we have consulted with many of our friends in those counties and found without an exception perfect accord and hearty acquiescence in our ideas, consequently we are emboldened to ask all who feel an interest in this matter to meet at the hotel at Annapolis Junction, A. A. county, (being a central place), on Monday, the 29th of December, to confer together and arrange for the establishment of such an association if it shall be deemed advisable upon a full interchange of views, We

are assured a large number of leading agriculturists and friends of agriculture will be present.

We respectfully appeal to the pride of our citizens in this territory to band together and not be left behind by their brothers of all other portions of the State, in the great uprising of the people now going on to build up their lately broken fortunes and foster the renewed efforts of agriculturists to secure rapid progress in their mighty cause.

☞ All newspapers friendly to this call will please notice the same,

The Great Fat Stock Show at Chicago, Ill.

This great show took place last month at Chicago, and was a signal success financially and every other way. We learn from the papers of that city that the attendance was unexpectedly great. There was a poultry department added to the show, which proved a most attractive feature although the number of poultry was meager. The dairy feature was highly commendable. This department represented the best dairies and creameries of Illinois and portions of the west. The hogs and sheep were very fine, and the prices asked for sheep were very high.

The cattle of various breeds were uncommonly good. The great contest for superiority of beef was between Short-horn and Hereford.

Mr. T. L. Miller, of Beecher, Ill., took the premium for best 3 year old dressed beef, being a Hereford, over a Devon and a Short-horn.

We will endeavor to give particulars next month of this very interesting show. In the meantime we give an extract from the *Western Rural* evidently colored by prejudice in favor of the Short-horn. We differ from the conclusions the editors of the *Rural* draw from the facts of the table given. From it, we conclude, that the Devon showed a larger portion of what the *Rural* calls the more valuable parts, in proportions to gross weight than either of the breeds. Our readers can judge for themselves. As to the slur that the Hereford was a part Short-horn, is a gratuitous imputation upon Hereford breeders we disdain to notice. They can take care of themselves. We give the extract from the *Rural* as follows:

"We give the results of the slaughtering of three grades, which we think sustains our position that there is no better animal than the Short-horn, especially when the difference in price is taken into consideration. The results were as follows:

	Hereford.	Short-Horn.	Devon.
Gross weight,	1,963	1,794	1,614
Head,	55	47	49
Hide,	106	90	95
Gut,	113	97	95
Rough,	178	155	145
Fore Quarters,	725	611	552
Hind Quarters,	592	568	503

"It will be observed that the less valuable parts are greater in proportion in the Hereford, and that the more valuable, the hind-quarters, are greater in proportion in the Short-horn. It was thought by some that the Hereford had Short-horn blood, which was credited with producing even the comparatively superior merits of the animal.

LARGE CROPS FOR 1879.—We gather from the U. S. Agricultural Department monthly reports for November, the following:

Wheat.—The returns of November 1 show an increase in the wheat crop of 26,000,000 bushels over that of last year. This great increase is the result of the very large yield in all the States bordering on the Ohio river and Missouri. Texas, of all the Southern States, is the the only one that falls off in yield this year.

Tobacco.—The indicated product for the entire country is 98 per cent. of that of 1873. The grain has been greatest in Tennessee, Connecticut and New York; the loss is greatest in Ohio, Missouri and West Virginia, with a material decrease also in Maryland, Illinois and Indiana. In general, quality is better than that of the previous crop.

Corn.—According to the returns, November 1, the corn crop promises an increase of over 200,000,000 bushels, or nearly 15 per cent. over last year. The Atlantic and Gulf Coast States note some decrease, but the other sections of the Union have greatly increased their yields. The Southern inland States increase nearly 30 per cent. and the other sections of the Mississippi Valley nearly 20. The Pacific States report about the same yield as last year.

THE possibilities of change in the vegetable world are strikingly illustrated by experiments made with a view to change the colors of plants and blossoms by means of sulphurous acid. A large number of flowers, such as roses, periwinkles and others, are made almost white by exposure to this acid. A more striking experiment is seen in plunging flowers of almost any color into ordinary ether, to which has been added about one-tenth its volume of ammonia. Roses, geraniums, lilacs, thyme, blossoms, heliotropes, and others, become of an intense green on being subjected to this process.

LADIES DEPARTMENT.

Chats with the Ladies for December.

BY PATUXENT PLANTER.

HOLLY TIME.

The wood is barren as the wold,
The leaves have rustled long ago;
There is no warmth in Nature's breast—
The flowers have perished in the cold—
Not even the hot marigold

Offers her bosom to the snow
In holly time.

The winds rend out the empty nest,
The robin shivers in his song,
There is no warmth in Nature's breast;
Faint gleams of brightness at the best,
The glory of the year prolong

In holly time.

Yet sweet as days when skies are blue,
And cherries redden on the wall—
When blossoms fed with sun and dew
Their beauty silently renew—

Yes, sweeter, more desired than all
In holly time.

For now, as if the Incarnate Word
Wa'ked it again, the sterile earth,
Remembering the glad tidings heard
Of angels, to its heart is stirred
With promptings of renewing birth,
This holly time.

Joy in life's pulses throbs and burns,
The Hours, star-crested, sweep along,
Shedding delight from brimming urns;
Youth to the heart of age returns,
And fans the ashen brands of song
At holly time.

The sacred hearths, whence yule flames rise,
Are altars whereon, each apart,
The households offer sacrifice
Out of the tender sanctities
And superstitions of the heart,
This holly time.

Thus do celestial glimpses bless
The stricken world, as though its woes,
Its sins, its sorrows fathomless,
Had ending, and the wilderness
Had gone to blossom like the rose
In holly time.

Ere long, and before we can have another chat,
that gladdening time—CHRISTMAS—will have come,
been enjoyed and passed. Let us all prepare for

it. How? By making each one for himself such arrangements as will bring the most immediate pleasure and secure the largest amount of comfortable, self-approving reflections for the mind hereafter. Jollity and mirth are indispensable at Christmas, but it should not be clouded by excesses or intemperance—the latter not only in eating and drinking, but in words and actions. That exhilaration which springs from a contented mind, a grateful heart, and the consciousness of having done some recent act which gave happiness or comfort to others, is the kind of hilarity which can safely be indulged in, for it gives present delight and future peace.

There are many parents who are arranging this month to have assembled on that day all their living children and their families within the old family mansion. Thousands of children scattered far from each other are looking anxiously for the happy time to come when they will all meet once again around the paternal board. But there are a large number of parents and children so situated that they can have no re-union this Christmas. For all such, let us hope, they will affectionately keep Christmas in their hearts. Let their thoughts go back to the days of their youth and light the fires of former Christian times, and in imagination live over again those days of love and merriment. Where'er you be, dear readers, let your memories dwell upon the fond home-scenes of this season in your childhood days. In those memories, perhaps, there may be cypress twined with the holly—a cloud may obscure part of the sunshine, but these will only tend to sanctify those remembrances of the days that passed and render our hearts more susceptible to a full appreciation of the immeasurable boon which our Creator bestowed on us 1879 years ago, when he gave to us a Redeemer. Our joys on that day will not be lessened by recalling this fact and remembering our absent ones, but will purify our thoughts and elevate our pleasures.

Those who are debarred from a family re-union, should spend the day with some of their most cherished friends.

In some parts of our country Thanksgiving day is the great day for family and friends to meet and have a happy time, and New Year's day is set apart in some places for the world of fashion to interchange joyful civilities, but Christmas day has ever, in England and in the South of our happy country, been chosen to burn the Yule log and make happy all the dwellers, and relatives, and strangers that come under the roof tree at this merry-making time. No matter where we may be or what arrangements we may make for the disposition of ourselves we should not fail to prepare in time for

the indulgence of our generosity, or our kindly feelings toward, not only our friends, but some poor object whose suffering or sadness we may contribute somewhat to relieve or alleviate by some Christmas token of affectionate remembrance, or with a substantial gift of something useful. Solid food, light nourishment, fuel or raiment to a sick or penniless man or woman, a top to a boy, a doll to a girl, a flower to a maiden or a kind greeting of the season to a youth, a letter to an old and absent friend or some petty gift, however great or small these little kindnesses may be, they will never be unduly appreciated by those whose hearts are human, or whose sensibilities are attuned to love and gratitude. It is the evidence of the intention—not the value of the gift, on these anniversaries that keeps awake benevolence of feeling, begets a broad Christian charity, invokes the smiles of gratification, calls forth blessings on the giver, smother's wrath and harmonizes the good feelings of a community, generates love for our fellow-man, humanizes the grosser, and refines the better elements of Society. These interchanges of trifling kindnesses animate courtesies, quicken regard and esteem, cement friendship and keep alive the lamp of love.

THE OLEANDER.—This beautiful plant, when under proper culture, is truly a gem among flowers. This is the best time for making cuttings of it, as they will usually grow better and bloom earlier. The best way to root them, is in a bottle of rain water set in the window. The cuttings should be no deeper in the water than half way up to the second joint, and when the rootlets get to be half an inch long, carefully pot in rich, sandy loam. After the plant blooms, cut back to within a foot or fifteen inches of the ground, when three branches will come out; let them grow until it again blossoms, after which cut them all back about six inches from the main stalk, and every time it blooms, repeat cutting back and in a few years a very beautiful plant will be the result; in fact, with proper care, it will grow more beautiful with age. —F. H. D. in *New England Farmer*.

THE TURNIP 'AS A "GREASER."—In baking buckwheat and other griddle-cakes, a piece of fat meat as a "greaser" is by many thought to be indispensable. Those who are of this opinion will, on trial, soon learn that a turnip divided in two answers the same or a better purpose, as the odor—the most unpleasant part of cake baking—comes from the greaser in contact with the hot iron; whereas with the turnip very little of this perceptible.

To the Ladies.

The husband generally, is supposed to be the bread earner of the family, and I now call your attention seriously to the following:

Every mother is more or less troubled for the future welfare of their families, and I would not wish them to lose sight of this fact. I have known many families who were very comfortable during their husband's life, but at his death are placed in straightened circumstances, if not in actual poverty. What business can the mother follow if she has been the wife of a merchant's clerk and able to keep her own servants, but the requirements of position have prevented her from saving anything, and whenever misfortune comes it is necessary to have the means of living and educating the children? How much better it is to anticipate such a crisis and to begin as soon as possible to have a certain income? Engage in the poultry business, and when you have sold the first \$500 worth, your fortune is made; for should misfortune arrive all that you have to do is to increase the number of your hens.

However grievous the loss of the husband may be, and whenever it may happen, you may be sure he would bless you for securing the welfare of his children and driving that gaunt dog, poverty, from the door; and even should not death, but commercial panics, which are a most frequent cause of misery, cause a change of living, your poultry will supply all the necessaries of life, and I should be happy if I knew that this advice had been followed.

Already has the example been set in Europe by several ladies, who certainly would never require assistance from the raising of poultry, and yet are not ashamed to acknowledge that they do receive a large profit from this pursuit, and have great pleasure and satisfaction in devoting their time and intelligence to it.

Her Majesty, Queen Victoria, of England, has a splendid poultry house and spends numerous days in studying, with great attention, the different remedies for ameliorating the condition of poultry, and we are indebted to her for the system of feeding which she has pursued for young turkeys, so as to avoid the great mortality that takes place when they get the red. This receipt has been regarded by those who are engaged in turkey raising, as a superior remedy. But a long time before some people had presented to her Majesty the discovery of this receipt, we had made use of it and recommend it already. Further on more explanation will be found.

We find also that the example set by Queen

Victoria has been followed in France by the Countess d' Albertas and the lovely Marchioness Bugean de la Tour de Pin, Antoine Passy, Cora Millet, Marie la Barriere de St. Polen Garret, etc. Madame la Boronne de Leinas, widow of an officer without fortune, and six children, became immensely wealthy in raising poultry, and already two of her accomplished daughters are married to men of the first rank and position. The fortune of Madame de Leinas is daily and steadily increasing from this source.—*Corbett.*

"The Man."

Mrs. Duniway, of the *New Northwest*, at a literary reunion at Salem, Oregon, "toasted" the gentlemen as follows:

"God bless them! They halve our joys, they double our sorry, they treble our expenses, they quadruple our cares, they excite our magnanimity, they increase our self-respect, they awake our enthusiasm, they arouse our affections, they control our property, and out manoeuvre us in everything. This would be a very dreary world without 'em. In fact, I may say, without prospect of successful contradiction, that without 'em it would not be much of a world anyhow. We love 'em and the dear beings can't help it; we control 'em and the precious fellows don't know it.

"As husbands they are always convenient, though not always on hand; as beaux they are by no means 'matchless.' They are most agreeable visitors; they are handy at State Fairs, and indispensable at oyster saloons. They are splendid as escorts for some other fellow's wife or sister, and as friends they are better than women. As our fathers they are inexpressibly grand. A man may be a failure in business, a wreck in constitution, not enough to boast of as a beauty, nothing as a wit, less than nothing as a legislator for women's rights, and even not very brilliant as a member of the press; but if he is our own father we overlook his shortcomings and cover his peccadilloes with the divine mantle of charity. Then, as our husbands, how we love to parade them as paragons! In the sublime language of the inspired poet:

"We'll lie for them,
We'll cry for them,
And if we could, we'd fly for them.
We'd anything but die for them."

Old Rhoda, a mare 43 years old, owned by E. L. Thompson, of Connecticut, died recently, after having done good service up to the very day of her death.

How to Make Butter.

Hon. S. E. Lewis, of Oxford, Chenango county, addressed the New York State Agricultural Society on the subject of butter making. The following brief abstract contains many hints of value to dairymen:—

"Only the high grades of butter are free from competition with oleomargarine, of which as high as 260,000 pounds have been made in the United States in a single day. At least 50 per cent. of our dairy butter is none too good to compete with this counterfeit article. Exporters even are demanding our best grades. Butter makers will be compelled to improve the quality of their butter. We cannot afford to make a poor article. In my opinion a great amount of butter is spoiled, first, by uncleanness in manufacture; second, by too much acid in the cream; third, by caseine in a decomposed state in the butter; fourth, by too much friction on the butter in churning and working. Foul milking stables, impure water, odors from decomposing matter, all affect the quality of the milk. There is over a pound more sugar in a hundred pounds of milk than there is of butter. Sugar acid is the first sign of decomposition in the milk. It destroys the sugar. The second or lactic acid, destroys the oils that give butter its fine aroma. When these two acids are fully developed, destroying the sugar and aromatic properties, we have what may be called the natural oleomargarine butter—it is scarcely better than the patent article. Cream should be churned while in the first sugar acid. The best butter is made from sweet cream, but that made from sweet cream is more susceptible to odors than sour cream butter. Mr. Lewis related careful experiments that he had made in raising cream at different temperatures and under different treatment, the general conclusion being that it will rise the fastest on a falling temperature. He did not believe that all the cream could be got out of the milk, but what is left is of little value for butter making. It is the cream that separates readily under good treatment that makes good butter. The churning should be stopped while the butter is in a granulated state. It is a mistake to churn until it is gathered in a compact mass. If the butter be taken out in the granulated condition the buttermilk will drain from it readily. The butter should be put in a fine hair sieve and the buttermilk thoroughly washed out by pouring clear cold water on to it. In this way it can be thoroughly freed from the caseine and sour buttermilk, with scarcely any working, and the less working, that is necessary the better. In working, the ladle should never be permitted to slide or slip on the butter to injure or break down the grain."

Garden Vegetables.

To the Editor of the *Maryland Farmer*.—For the successful cultivation of garden vegetables, the use of chemicals and minerals is much better adapted than that of animal excrements or stable manure to supply in sufficient abundance and in the most available form those necessary constituents found wanting in soils, or abstracted slowly from those long under cultivation by successive crops. There is a marked difference to be observed between vegetables grown upon soil where chemicals and minerals are used and those where stable manure is employed, the former being less watery, more solid, of better quality, texture and flavor. Pigs' dung is characterized by an exceedingly unpleasant odor, which, when applied to the land, it imparts to the crops, and especially to the root crops which are manured with it; even tobacco, when manured with pigs' dung, is so much tainted that the leaves subsequently collected are unfit for smoking. Sickness resembling typhoid fever has been caused in horses and cattle which were pastured on land where sewage was used, and may not vegetables grown in soil where effete matter is used be one reason for the prevalence of this disease? If so, it is at once prevented by removing the cause, while by the use of the necessary chemicals and minerals adapted to the various crops, no loss is sustained by market gardens; rather are they helped to a strong and more vigorous producing capacity of larger and better crops, and at a less cost than the use of the stable manure entails. If, in pastures, a portion be dressed with barn manure and a portion with chemicals and some left undressed, the cattle turned in will seek the portion dressed with chemicals to the exclusion of the other parts, that portion dressed with barn manure being entirely neglected.

Animals are subject to all the dangers which affect the health of human beings; thus disease among cattle may spread unchecked through an extensive district from one seed-bed of pestilence and contagion, as we have seen in pastures on which cattle from Texas had been kept.

The dreaded disease, diptheria, springs from the growth of noxious fungi caused by offensive surroundings, a defective drain, or badly-conducted privy; and may not the milk of cows that are kept on such fields be contaminated and thus rendered unfit for food, and be one cause of the mortality among children?

ANDREW H. WARD.

Bridgewater, Mass.

Dr. N. B. Wolfe, of Cincinnati, offers in another column a copy of his popular treatise, *Medical Common Sense*, free of charge to those of our readers who are suffering with Consumption, Asthma or Catarrh. Send for it by all means.

A Fish Pond on the Farm.

The *Germanatown Telegraph* is good authority on sporting matters, as well as on subjects agricultural. In reply to a farmer who wishes to establish a fishing pond upon his own premises, the editor gives the following instructions, which are so plain and simple that all who are favorably situated cannot only understand but put them in practice:—

"In the first place he should have plenty of spring water on his own premises, and the size of the pond will depend upon the volume of the spring. If it should be what is called a strong spring, it would be sufficient to supply a pond of from a fourth to half an acre in extent. The size must be gauged in order that the supply of water will keep the fish in as good health as at least an ordinary sized brook where fish abound and which is not supplied directly with spring water. There should be a few deep holes in which to hide, and then again very shallow places in which to spawn. These latter places should have a sandy or gravelly bottom, which should be made by hauling the sand or gravel from another portion of the farm, should it not be naturally at the bottom. At the overflow of the dam there should be a screen to prevent the fish leaving the pond."

"The kinds of fish to put in such a pond are white catfish, eels, sunfish mullets, if they can be had, and black-bass. Strange to say, this latter fish will do well in such a pond and multiply next to catfish. They must have, however, good water and a portion of the pond a gravelly bottom. In such a pond the fish would be better than those caught in the common creek, and would furnish any farmer's family with all the fish they would require and of good quality, and a good deal of sport besides."

A STATE BUTTER SHOW.—The Massachusetts Board of Agriculture will hold its annual country meeting, this year, at Greenfield, on December 2d, 3d and 4th, and for the first time will hold a grand Butter Show and a general Exhibition of Dairy appliances and implements. A very liberal list of premiums on the exhibits of butter has been arranged, many of which are arranged by prominent dealers in dairy products and manufacturers of dairy implements. Several able addresses and essays will be delivered and the proceedings will be of the highest interest to the farmer and to those engaged in different branches of dairying, which, as a national industry, is attracting at present unprecedented attention.

An Olio for our Farmers.

PRESENCE OF MIND—Professor Wilder gives these short rules for action in case of accident:—For dust in the eyes, avoid rubbing, dash water into them. Remove cinders, etc., with the round point of a lead pencil. Remove insects from the ear by tepid water; never put a hard instrument into the ear. If an artery is cut, compress above the wound; If a vein is cut, compress below. If choked, get upon all fours and cough. For light burns dip the part in cold water; if the skin is destroyed, cover with varnish. Smother a fire with carpets, etc.; water will often spread burning oil and increase the danger. Before passing through smoke take a full breath, and then stoop low, but if carbon is suspected, walk erect. Suck poison wounds, unless your mouth is sore; enlarge the wound, or, better, cut out the part without delay. Hold the wounded part as long as can be borne to a hot coal or end of a cigar. In case of poisoning excite vomiting by tickling the throat or by water or mustard. For acid poisons give acids; in case of opium poison give strong coffee and keep moving. If in water float on the back with the nose and mouth projecting. For apoplexy raise the head and body; for fainting lay the person flat. —*Scientific American.*

PEANUTS contain 30 to 40 per cent. of oil, and yield besides about 58 to 68 per cent. of cake, which is a very nutritious feeding substance. The process of extracting the oil is in no way different from that used in the linseed, cotton seed, or castor bean oil manufacture. The nuts are ground; the meal is put into hair-cloth bags, and these are pressed between heated metal plates in a very powerful hydraulic press. We cannot give the cost of the machinery precisely, but \$1,000 will procure sufficient to work up 2,500 bushels per year.—*Rural Messenger.*

THE experiments of Dr. Voelcker go to show that the most valuable manures for potatoes are phosphoric acid and nitrogen, and that potash is only occasionally helpful.

THERE is probably no better time in the whole year than the present for pruning and cutting back grape-vines, all sorts of fruit trees and ornamental trees and shrubs.

THE GRAVES PEACH, A SEMI-CLING, is the name of a new variety of Peach, lately discovered and fruited in Mississippi. It is supposed to be a hybrid of an apricot and native seedling peach. It is said to ripen much earlier, to be much larger and more beautiful than any other early peach known. We hope it will prove to be a very valuable acquisition, for a first-class early peach of good size is much needed by our peach growers in our immediate peach region.

BALTIMORE is fast developing as one of the most important ports on the Atlantic coast. The increase in the volume of her grain trade during the past year or two has been something remarkable, and she now ranks second to New York among the Eastern grain-shipping ports. During the month of July the receipts of wheat were about five million bushels, an amount equal to the entire annual receipts at that port within comparatively a few years. The exports have been nearly four millions bushels, and the sales, including options for future delivery, amount to the enormous aggregate of 14,000,000 bushels, representing a money valuation of about \$15,500,000.—*American Mail and Export Journal, N. Y.*

[To this we add that Baltimore is fast becoming a shipping port for cattle and other stock. Recently 13 horses and 1,000 cattle were shipped in one week on vessels that were fitted up for the Barrow and Baltimore trade. A regular line for transporting cattle of all descriptions, meats, &c., it is understood, will be soon accomplished, as at Barrow extensive facilities have been constructed for handling cattle.]

TEA CULTURE AS A PROBABLE AMERICAN INDUSTRY.—We are indebted to the author, Mr. W. Saunders, for his admirable Essay on Tea Culture in this Country, read before the New York Horticultural Society, October 7th, 1879. The writer gives an elaborate history of the tea plant and of its importance as an article of commerce, and of its culture, manufacture, &c. While he seems to think it will be a very long time before it may reach the dignity of a profitable exporting product, he concludes his highly commendable paper on this subject, after a long array of evidence of the tea growers of the United States, by saying, "it is sufficiently well ascertained that it is within the capacity of hundreds of thousands of people in this country to grow and prepare all the tea they require, leaving the question of its profitable commercial culture to be settled by practical test.

MOLASSES TAFFY.—Two cupfuls of molasses, one cupful of sugar, butter the size of a guinea-hen's egg. Boil hard for twenty minutes. Add half a teaspoonful of soda. Try if it is brittle; if not, boil a few minutes longer.—Pour out into two buttered dishes. Nuts may be added, if you like just before the soda.

SIR GARNET WOLSELEY has had a new cucumber named after him. It produces cucumbers in abundance, of a pale green color, "of excellent flavor, 20 inches long and of the same thickness from end to end.

